

WARNER  
FILE

Window Rock, Arizona 86515

May 3, 1979

Memorandum

TO: Area Director  
Attn: Asst. Area Director (Resources)

FROM: Field Solicitor

SUBJECT: Mineral Leasing of Allotments

Because of recent charges (Peshlakai v. Schlesinger, Petition of McRae) that the BIA in handling allotment mineral leasing has not always acted in the best interests of allottees; and because of the exacting standard of conduct placed on us by our trust responsibility to allotment owners, this office recommends that all future leasing transactions by the Bureau place a greater emphasis on notice to affected allottees when negotiations begin between the BIA and energy companies. Such notification should be given whenever a company shows interest in leasing a particular allotment. The problem in the past has been that, although the lease is agreed to and signed by individual allottees, the terms are usually reached in negotiations between the Bureau and the potential lessee, with little if any input from the potential lessor. Although this general approach will necessarily continue because of the need for legal expertise in lease negotiations allottees should be involved early in the process in order to incorporate their suggestions in draft leases and to give them an opportunity to retain private legal counsel if they so desire. Allottees should be apprised by the Bureau of the particular leasing situation presented to them, and the potential problems which are involved. Because of the increasing complexity of leases and the possibility that knowledgeable counsel could provide those lessors in need of more complete planning, including income tax and estate plans, with the required expertise, it is advisable to have early participation by allottees. Such notice might also help to avoid charges of overreaching by the energy companies of non-English speaking allottees.

In order to facilitate this plan, it is suggested that letters be sent to each affected allottee whenever an

Attachment B

energy company expresses interest in his/her allotment. Thereafter, the Bureau could either hold a meeting to explain the situation and answer questions, or apprise the allottees of where they can obtain information and advice regarding proposed leases. It is hoped that, in conjunction with this plan, the Bureau (through the Solicitor's Office) could develop some expertise in advanced lease agreements that would provide the most benefits and possibilities for long-lasting economic development from all leases. This might involve planning joint ventures between allottees and energy companies, or the formation by affected allottees of business ventures to promote economic development with royalty payments. Such programs by the Bureau on behalf of allottees would go far in fulfilling our trust responsibility to allotment holders.

*Claudeen Bates Arthur*

Claudeen Bates Arthur  
Field Solicitor

CBA:jb.

791-84-80

RECEIVED

APR 15 10:47

SOUTHWEST TITLE PLANT  
BUR INDIAN AFFAIRS  
ALBUQUERQUE, N. MEX.UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS

Contract No. N00-C-14-20-8396

MINING LEASE INDIAN LANDS  
(For Minerals other than Oil and Gas)

Mining Lease, Navajo Indian Allotted Lands

THIS INDENTURE OF LEASE, Made and entered into in quadruplicate on this 24th day of March, 1980, Between Brown Vandever \_\_\_\_\_ " or heirs as the case may be." (Probate No. \_\_\_\_\_) of McKinley County, State of New Mexico, part of the first part, hereinafter called the Lessor, and Todilto Exploration & Development Corporation of Albuquerque, State of New Mexico, part of the second part, hereinafter called the Lessee, under the provisions of the Allotted Land Mineral Lease Act of March 3, 1909 (35 Stat. 783) and any amendments thereto.

## WITNESSETH:

I. Lessor, in consideration of \$12,253.50 bonus receipt of which is hereby acknowledged, of the rent and royalty to be paid, and of the agreement of the Lessee, herein contained, grants and leases unto Lessee for the purpose of prospecting for and mining uranium and associated minerals including in situ solution mining, except coal, oil, gas, and any mineral not associated with uranium, upon the land described as follows:

Southwest Quarter

Section 18, Township 13 North, Range 10 West,  
\_\_\_\_\_, New Mexico Principal, Meridian, Navajo  
Indian Allotted Lands, McKinley, County, State of New Mexico  
\_\_\_\_\_, and containing 163.38 acres,

Attachment C

more or less. The Lessee may occupy as much of the surface of the leased land as is necessary to carry on the work of exploring for, developing, mining, producing, processing and in situ recovery (solution mining), milling subject to the provisions of 25 CFR 131 and any other applicable laws and regulations, marketing, and removing said minerals, including storing subject to payments to be made as hereinafter set forth. Subject to the limitations hereinafter provided, Lessee shall have the right and license in connection with the operation of mining on the leased land to construct thereon buildings, pipelines, plants, tanks and other structures used or useful in the production, processing and transportation of said minerals; make excavations, openings, stockpiles, ditches, trains, roads, railroads, transmission lines, and other improvements used or useful in said production, processing and transportation; produce electrical power for its own use, erect and operate power lines, place machinery and other equipment and fixtures upon the leased land; use and transport water developed by Lessee on the leased land and any other water made available to Lessee; prepare for market, remove, process, and sell minerals; do all other things upon said leased land that may be necessary to carry on the mining operations hereunder, including the right of ingress and egress; however, the rights contained herein do not include the right to permanently dump or dispose of waste products of mining and milling on the surface of the leased lands.

(a) Survey of Leased Premises.

Within 180 days of the approval of this lease, Lessee at its own expense shall have the leased land surveyed by a registered surveyor, the boundaries posted with substantial monuments and a tie established with the nearest United States Public Survey marker. A certified plat map of the leased land shall be furnished to the Area Director in quadruplicate and two additional copies furnished to the Supervisor.

II. TERM. Subject to the other provisions herein contained, this lease is for a term of 10 years from the date of its approval and as long thereafter as the minerals specified are produced in paying quantities.

III. DEFINITION. Area Director refers to the official in charge of the Navajo Area Office, Window Rock, Arizona, or his authorized representative. The Secretary refers to the Secretary of the Interior or his authorized representative. Supervisor refers to the Area Mining Supervisor, U.S. Geological Survey, Albuquerque, New Mexico, or his authorized representative.

IN CONSIDERATION OF THE FOREGOING, THE LESSEE AGREES:

IV. ROYALTY. To pay or cause to be paid to the Area Director, with copies of the statements to the Supervisor, for the use and benefit of the Lessor royalties calculated as specified in Exhibit "A" attached hereto and by reference made a part hereof. Such royalties are payable not later than the 25th day of the succeeding month for which royalties are due.



V. MINIMUM ROYALTY. A minimum annual royalty of \$20.00 per acre shall become due and payable beginning with the date of approval of this lease and thereafter \$20.00 per acre on each anniversary date of the approved lease. If there is production during the lease year, the minimum royalty shall be credited against actual royalty during such year, but no other year. If the lease is surrendered or cancelled, no advance royalty paid to Lessor will be refunded.

VI. ANNUAL RENTAL. To pay or cause to be paid to the Area Director for the use and benefit of the Lessor, in advance, beginning with the date of approval of the lease, as annual rental, the sum of \$5.00 per acre for the first lease year and thereafter \$5.00 per acre on each anniversary date of the approved lease. The rent shall not be credited against royalties accruing to the Lessor under this lease. If the lease is surrendered or cancelled, no rent accruing to the Lessor will be refunded.

VII. ADJUSTMENT OF ROYALTY. Royalty rates shall be subject to reasonable adjustment by the Secretary two years after commercial production begins and at the end of each successive five year period thereafter, based on market conditions as supported by evidence from the field.

The Lessee agrees that the Secretary, for the purpose of determining the royalties due hereunder, may establish reasonable minimum values for the minerals produced. Due consideration will be given to the highest price paid to producers for minerals of like quality produced from the same general area, the price received by the Lessee, posted prices, and other relevant matters, including information provided by Lessee. At no time shall the adjusted royalty rate be less than the rate established two years after commercial production begins, notwithstanding any other provision of this lease.

VIII. EXCAVATION, WASTE AND CONSTRUCTION AREA. It is further agreed that in addition to all payments of bonuses, royalties and rentals heretofore set forth, the Lessee shall pay to the Area Director for the use and benefit of the Lessor, TWO HUNDRED DOLLARS (\$200) per acre for each acre and a proportionate amount for each part of an acre within the leased land used for permanent construction, open-pit mining or dumping of overburden or waste products from mining and milling subject to the provisions of Article I and Article X(6). This amount shall become due and payable at the end of the lease year in which the use of the acreage commences and shall be payable one time only. Before any such use commences, lessee shall in the plan required in Article X(6) hereof, furnish to the Secretary a written procedure for restoring the land.

The Lessee agrees to pay to the Area Director for the use and benefit of the Lessor, TWO HUNDRED DOLLARS (\$200) per acre for all land used for campsite purposes within the leased premises, it being understood that the payment of \$200 per acre is in addition to all other payments required under this lease and is a sum which shall be charged only once for campsite acreage. The campsite selected shall be the minimum acreage necessary for the operation and shall not include a complete and permanent housing and community development for Lessee's employees.

IX. OWNERSHIP OF WASTE MATERIAL. Lessee may remove to other lands overburden and waste materials extracted from the leased land or waste materials which are residual waste products of processed ores from the leased land; provided, if minerals or by-products are removed or produced from such materials by, or for, Lessee, Lessee shall pay Lessor royalty as provided under the provisions of this lease.

X. PROTECTION OF ENVIRONMENT AND RESTORATION OF SURFACE. The Lessee agrees to preserve and protect the natural environment conditions of the land encompassed by this lease, or land affected by his exploration or mining operations, and to take such corrective actions as may be necessary within the scope of normal soil, stream and air pollution practices as follows:

(1) Conduct operations so as not to permanently pollute any surface or subsurface fresh water supply.

(2) Control water supplies in conformity with existing Federal and applicable Tribal laws and in all cases hold erosion and flood damage to a minimum.

(3) Abide by State, Federal, and applicable Tribal Laws, Regulations or Codes applicable to water resource utilization.

(4) Terrace and landscape waste disposal areas in a reasonable manner at his own cost and expense. The landscaping shall include, but is not limited to, the planting of grasses, shrubs, and other vegetation which will partially screen the area from view and control water and wind erosion. The surface of any waste dumps shall be left reasonably flat, and tailings will be covered with soil to a depth that will permit the early establishment and propagation of vegetation upon the completion of use of the leased land or said waste or tailings, dumps or deposits.

(5) Conduct operations that will minimize air pollution which may result from stripping, mining, milling, hauling, leaching, or waste disposal, in conformity with applicable existing or future Federal and Tribal laws, and regulations or codes.

(6) As soon as practicable after the issuance of the lease, and before the commencement of any surface-disturbing activities, the Lessee shall submit a plan of implementation which shall indicate how the previously agreed to stipulations of environmental preservation contained in this Article X will be carried out. The plans of implementation shall be in conformance with 25 CFR 177.6 and 177.7 and shall be submitted to the Supervisor, and Area Director for approval.

(7) Radioactive waste material shall be treated and disposed of utilizing the latest available technology as set forth in and subject to the written plan submitted and approved pursuant to Article X(6), which would include such other government agencies responsible for radiation control and disposal.

(8) Within 30 days after each calendar year the Lessee agrees to file with the Supervisor and the Area Director, a report showing the acreage (surface) disturbed, the acreage rehabilitated, the method of rehabilitation and acreage graded and backfilled.

XI. GOVERNMENT RESERVES RIGHT TO BUY MINERALS PRODUCED. In time of war or other public emergency, any of the executive departments of the United States Government shall have the option to purchase at the posted market price on the day of sale, all or any part of the substance or substances produced under this lease.

XII. DILIGENCE, PREVENTION OF WASTE. Lessee agrees to exercise diligence in the conduct of prospecting and mining operations, to carry on development and operations in a workmanlike manner and to the fullest possible extent; to neither commit nor suffer to be committed waste upon the leased land; to comply with the applicable laws of the state in which the leased land is located; to take appropriate steps to preserve the property and provide for the health and safety of workmen; to surrender and return promptly the leased land upon the termination of this lease to whomever is lawfully entitled thereto in as good condition as when received. If the payments agreed upon by this lease have been made and the other lease terms and applicable regulations have been complied with, the office fixtures and records, personal property, tools, pumping, drilling equipment, boilers, engines, and mining machinery may be removed by the Lessee at any time before 120 days after the lease expires by forfeiture or otherwise. All permanent buildings shall remain the property of the Lessor unless the Lessor requires the removal of same; in such event the Lessee shall remove the buildings within the aforementioned 120 day period. The Area Director may grant reasonable extension of time for removal of such equipment and buildings.

XIII. FOREST PROTECTION. The Lessee agrees:

(1) To submit in advance to the Area Director for approval, a site development and layout plan, construction plan and any revisions thereto.

(2) Not to cut, destroy or damage timber without prior authority of the Area Director, such authorization to be made only where required by the pursuance of necessary mining operations.

(3) To pay for all such timber cut, destroyed or damaged at rates prescribed by the Area Director, such rates to be determined on the basis of sales of similar timber in the vicinity.

(4) Not to interfere with the sale or removal of timber from the land covered by this lease by contractors operating under an approved timber sales contract now in effect or which may be entered into during the period of this lease.

(5) To do all in its power to prevent and suppress forest, brush or grass fires on the leased land and in its vicinity, and to require its employees, contractors, subcontractors and employees of

contractors or subcontractors to do likewise. To place its employees, its contractors, subcontractors and the employees of such contractors or subcontractors employed on the leased land at the disposal of any authorized officer of the Bureau of Indian Affairs for the purpose of suppressing forest, brush or grass fires with the understanding that the payment of such services shall be made by the United States at rates to be determined by the Area Director, which rates shall not be less than the rates of pay prevailing in the vicinity for services of similar character; provided that no payment shall be made for services rendered in the suppression of fires for which the Lessee, its employees, contractors, or subcontractors or the employees of such contractors or subcontractors are responsible.

(6) To pay for the loss of all timber ten (10) inches or more in diameter occasioned by fires for which it or any of its employees, its contractors, subcontractors or the employees of such contractors or subcontractors are responsible for the start or spread, the assessment of the value of such damages to be determined by the Area Director on the basis of the value of such timber on sales of similar timber in the vicinity. Also, to pay liquidated damages for all young timber less than ten (10) inches in diameter destroyed by such fires and to pay all costs for the suppression of fires for which it or any of its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible.

(7) Not to burn rubbish, trash or other inflammable materials, except with the consent of the Area Director and not to use explosives in such manner as to scatter inflammable materials on the surface of the land during the fire season, except as authorized to do so by the Area Director.

XIV. DEVELOPMENT. The land described herein shall not be held by the Lessee for speculative purposes, but for mining the minerals specified. The Lessee shall spend annually in development and improvements upon the leased land, or for the benefit of the leased land, not less than \$15.00 per acre. The Lessee shall file with the Area Director an itemized statement, in duplicate, within 30 days after each calendar year, of the amount and character of the development expenditures during the calendar year. The statement must be certified under oath by the Lessee or its agent. If the Lessee fails to diligently develop or operate the mine, or produce minerals therefrom, this lease will be subject to cancellation, except when development, operations or production have been prevented by a strike, an Act of God, administrative or judicial restraint not attributable to the Lessee, or other cause beyond the reasonable control of the Lessee.

XV. UNITIZATION. In the event two or more leases comprise a single logical mining unit in accordance with maps and plans showing the proposed mining methods and the plant layout which have been submitted by the Lessee and approved by the Supervisor, then the Lessee may unitize such leases under such terms and conditions as may be agreed upon by the Lessor and the Lessee with the consent of the Area Director.

XVI. MONTHLY STATEMENTS. To keep an accurate record of the mining operations, showing the sales, prices, dates, purchasers, the quality and amount of minerals mined, and removed, the gross receipts, transportation, mining and milling costs and to furnish the Supervisor and the Area Director sworn monthly reports thereon before the twenty-fifth of the succeeding month. All royalty and advance rental due shall be a lien on any improvements, tools, machinery and other chattels used in the operation and upon the unsold minerals obtained under the lease. An audit of the accounts and books of the Lessee shall be made annually. Said audit shall be prepared and completed by a certified public accountant hired at Lessee's expense. The Lessee shall furnish free, through the Area Director, copies of the audit to the Secretary within 30 days after the completion of each audit. The audit shall be completed within 120 days from the lease anniversary date.

XVII. REGULATIONS. To abide by and conform to the terms of this lease and all regulations of the Secretary now or hereafter in force and relative to such lease including, but not limited to, 25 CFR 172 and 177, and 30 CFR 231, except as qualified herein. Rate of royalty, the annual rental or the term of the lease may not be changed by a future regulation without the written consent of the parties to this lease except as provided in this lease.

XVIII. ASSIGNMENT OF LEASE. The Lessee shall not assign this lease or any interest therein by an operating agreement including agreements providing for payment of overriding royalty. The Lessee shall not sublet any portion of the leased land before restrictions are removed, except with the approval of the Secretary. If this lease is divided by the assignment of the entire interest in any part of it, each part shall be considered a separate lease under all the terms and conditions of the original lease.

XIX. BOND. To furnish to the Area Director an acceptable surety bond made payable to the Area Director for the benefit of the Lessor guaranteeing lease term compliance, as provided in the applicable Federal Regulations. The right is reserved to the Secretary to stipulate the amount of a bond required for reclamation purposes.

XX. LIQUOR. The Lessee further agrees that it will not use or permit to be used any part of said leased land for any unlawful conduct or purpose whatsoever; that it will not use or permit to be used any part of said leased land for the manufacture, sale, gift, transportation, drinking, or storage of intoxicating liquors or beverages in violation of existing laws relating thereto, and that any violation of this clause by the Lessee or with its knowledge, shall render this lease voidable at the option of the Area Director.

XXI. INSPECTION. The leased land, appurtenances, and all books and accounts of the Lessee may be inspected by the Lessor, his agents, or the Secretary.

XXII. DISPOSITION OF MINERALS AND SURFACE.

(a) The Lessor expressly reserves the right to lease, sell or otherwise dispose of the minerals not subject to this lease and the surface of the lands in this lease under existing law or laws hereafter enacted, such disposition to be subject to the right of the Lessee to use as much of the surface as is necessary in the extraction and removal of the minerals from the leased land.

There is further reserved to Lessor, after consultation with Lessee, the right to construct, use and maintain canals, pipe lines and syphons on and across said lands; provided such use and facilities will not unreasonably interfere with Lessee's mining operations and rights under this lease.

(b) Lessor may hereafter grant to other persons, firms or corporations oil and gas leases, non-mineral leases, licenses, oil and gas prospecting permits, or rights-of-way upon the leased land; oil and gas drilling and producing activities may be carried out concurrently with Lessee's mining operations; provided, however, that no oil rights or installations of any kind shall be situated so as to unduly interfere with Lessee's right to carry on its mining operations and related activities; and provided further, that no well may be drilled for oil or gas at any location which, in the opinion of the Area Mining and Oil and Gas Supervisors, would result in undue waste of mineral deposits or constitute a hazard or interfere with mining operations being conducted by Lessee on the leased land. The provisions of this Article XXII shall be included in any oil and gas lease, license, prospecting permit or right-of-way granted by Lessor on the leased land.

(c) Notwithstanding any other provision of this lease, the Lessor reserves the right without liability of any kind, except as provided in this lease, to grant to qualified applicants rights-of-way for pipelines for the transportation of oil, gas, helium or petroleum products, for power lines, telephone, telegraph and water lines incident to the operations of such pipelines, across the lands embraced in this lease, upon the condition that prior to the granting of any such right-of-way the applicant therefore, as a condition precedent to such grant, shall file with the Area Director the following expressed undertaking in writing for the express benefit of Lessee:

1. That applicant will either bury the pipeline to a sufficient depth or at a place to be designated by Lessee, construct and maintain, at applicant's expense, a ramp, so that loaded vehicles, including Lessee's heavy mining equipment, may pass unhindered over said pipeline. Whenever said pipeline is relocated pursuant to subsection (2) of this section (c) of this Article XXII, applicant will either bury the relocated pipe or promptly construct and maintain, at its own expense, a suitable ramp in a new place designated by Lessee. Lessee shall not be responsible for damage to said pipeline caused by such vehicles and equipment crossing said pipeline.



2. That applicant will make adequate provisions in the construction of said pipeline, power transmission lines, telephone, telegraph or water lines so that, in the event it is determined by Lessee that mining operations should be conducted within the area of the right-of-way or that a power or industrial plant or other building should be built in such area, the line can be expeditiously relocated so as not to interfere with Lessee's operations; and applicant shall make such relocation, including any necessary bridging, at its own expense, within six (6) months from receipt of notice in writing from Lessee requesting such relocations. If applicant fails to make such relocation within such six (6) month period, Lessee may relocate the line without liability and at the expense of applicant.

3. Applicant will, at all times, keep, maintain and repair at its own expense, the portion of the pipeline crossing the leased land in such condition as not to injure, endanger or interfere with Lessee or any person or property on or about the leased land.

4. That applicant will promptly pay any lawful taxes, charges or assessments placed upon or levied against the pipeline or improvements or appurtenances in connection therewith; provided that applicant may contest the validity or amount of any such tax, charge or assessment and shall not be considered in violation of this stipulation until a reasonable time after final determination of such contest by a competent tribunal.

5. That applicant shall be responsible for any damage, loss of property, injury or death of any person directly or indirectly caused by the enjoyment of pipeline rights, and shall hold Lessee harmless and indemnify it against any and all claims therefor; and shall further hold Lessee harmless from and indemnify it against damage to or loss of property belonging to applicant or injury to or death of any person on or about the pipeline crossing on behalf of or at the invitation of applicant.

6. That applicant shall specify in writing to the Lessee the address to which all notices and requests may be mailed.

(d) LESSOR AGREES THAT:

1. No pipeline right-of-way granted across the leased land shall exceed fifty (50) feet in width. Rights-of-way for power lines and other purposes granted across the leased land shall be of such widths as will accommodate themselves to Lessee's permitted use of the leased land.

2. Lessee shall be given timely written notice by the Area Director of any application for rights-of-way over the leased land before the same are granted.

3. An executed duplicate of the undertaking specified in section (c) above and a true copy of the grant of rights described therein shall be furnished Lessee upon the granting of any application for rights over the leased land.

XXIII. SURRENDER AND TERMINATION. The Lessee may surrender this lease or any legal subdivision thereof by filing with the Area Director on or before the anniversary date of the lease a written relinquishment. If the lease has been recorded, the Lessee must file a recorded release with the Area Director on or before the anniversary date of the lease. The relinquishment shall become effective on the date it is filed with the Area Director, subject to continued obligation of the Lessee and his surety to pay all accrued rentals, royalties, and other payments due and to recondition the premises in accordance with the terms of this lease and the regulations. The Lessee shall, within 30 days after the termination of this lease, furnish the Area Director detailed and complete written reports of the exploration done and all information concerning the nature and value of the minerals. (25 CFR 172.23)

XXIV. RELINQUISHMENT OF SUPERVISION BY THE SECRETARY OF THE INTERIOR. Should the Secretary at any time during the life of this instrument, relinquish supervision as to all or part of the acreage covered hereby, the relinquishment does not bind the Lessee until the Secretary has given 30 days' written notice. Until the requirements are fulfilled, Lessee shall continue to make all payments due under Articles IV, V and VI. After notice of relinquishment has been received by Lessee, this lease is subject to the following further conditions:

1. All rentals and royalties accruing shall be paid directly to Lessor or its successor in title.

2. If at the time supervision is relinquished by the Secretary as to all lands under this lease, and Lessee has made all payments due under the lease and has fully performed all obligations on its part to be performed up to the time of such relinquishment, then the name of the obligee on the bond given to secure the performance of the lease and on file with the Area Director shall be changed to the Lessor who holds title of record.

XXV. WATER WELLS. Upon approval of the Lessor and the Area Director, the Lessee may, at its own expense, drill and equip water wells on the leased land. The Lessee agrees that at the termination of this lease, all wells with potable water shall be left intact and properly cased upon written approval of Lessor and Agency Superintendent. Lessee may remove all mechanical pumping equipment installed by Lessee at any well within 120 days after expiration of the lease, otherwise such equipment shall become the property of the Lessor.

XXVI. DAMAGES. The Lessee and all of his contractors and subcontractors shall conduct all operations authorized by this lease, including construction, operation or maintenance of any of the facilities on or connected with this lease, so as to prevent unnecessary damage to natural resources, improvements and the environment. On termination of operations under this lease, the Lessee shall make appropriate provisions for the conservation, repair and protection of the property and leave all the areas on which the Lessee has worked in a safe condition, not hazardous to life and limb, all to the satisfaction of the Lessor and the Area Director.

XXVII. LIABILITY FOR DAMAGE. The Lessee and all of his contractors and subcontractors are liable for any and all damages resulting from its operations under this lease, including injury to the Lessor, the tenants, licensees and surface owners, and for any and all damages to or destruction of all property, caused by the Lessee's operations hereunder. The Lessee agrees to save and hold the Lessor and the United States, their employees, licensees, and the surface owner or their tenants harmless from all suits for injury or claims for damages to persons and property resulting from the Lessee's operations under this lease.

XXVIII. ROADS. The Lessee may use existing roads, if any, on the leased land. On application, duly approved in writing by the Lessor and the Area Director, the Lessee shall be entitled to construct and maintain, at its own expense, any additional roads on the leased land necessary for exploration and mining. No part of any such road shall inure to the benefit of the public, and the public shall obtain no rights thereon. If at any time the Lessee does not require the use of any such road for the operations authorized under this lease or upon termination of this lease for any cause whatsoever, the right to use any such road shall cease, and road surface shall be restored to its original condition unless otherwise agreed, and all the rights shall revert in Lessor in accordance with law. The Lessee shall hold the Lessor and the United States harmless and indemnify them against any loss or damage that might result from the negligent construction or maintenance by Lessee of the road.

XXIX. INDIAN LABOR. To the extent allowed by applicable Federal and State laws, the Lessee shall give a priority right of employment and training to members of the Navajo Tribe for all positions for which they are qualified and available and shall pay the prevailing wage rates for similar services in the area. Upon initial hiring and whenever thereafter a job opening occurs, the Lessee, its contractors, and subcontractors, shall give notice of such opening to the Agency Superintendent stating the time and place where job applications will be accepted. Lessee agrees to give priority to employment and training of Lessor and other Navajo Indians for skilled and unskilled, technical and other higher jobs in connection with Lessee's operations under this lease. Except in cases of emergency, no nonmember of the Tribe shall be hired for any job until 48 hours following the delivery of such notice to the Agency Superintendent.

XXX. INSURANCE, SOCIAL SECURITY, TAXES, ETC. The Lessee agrees to carry insurance covering all persons working in, on or in connection with the leased land for the Lessee as will fully comply with the provisions of the statutes of the State of New Mexico covering workmen's compensation and occupational disease, as are now in force or as may be amended. Further, the Lessee agrees to comply with all the terms and provisions of all applicable laws of the State of New Mexico as now exist or as may be amended, pertaining to Social Security, unemployment compensation, wages, hours and conditions of labor; and to indemnify and hold the Lessor and the United States harmless from payment of any damages occasioned by the Lessee's failure to comply with

these laws. The Lessee shall pay all taxes lawfully levied or assessed on the sale, severance, production, extraction or removal of any of the minerals covered by this lease.

XXXI. HEIRS AND SUCCESSORS IN INTEREST. It is further covenanted and agreed that each obligation under this lease shall extend to and be binding upon, and every benefit hereof shall inure to the heirs, executors, administrators, successors of or assigns of the parties to this lease.

XXXII. GOVERNMENT EMPLOYEES CANNOT ACQUIRE LEASE. No lease, assignment thereof or interest therein, will be approved to any employee or employees of the United States Government whether connected with the Bureau of Indian Affairs or otherwise, and no employees of the Interior Department shall be permitted to acquire any interest in such leases by ownership of stock in corporations having leases or in any other manner.

XXXIII. PENALTIES. Failure of the Lessee to comply with any provisions of the lease, or the regulations contained in 25 CFR 172 and 177, and 30 CFR 231, orders of the Area Director, or the orders of the Supervisor, shall subject the lease to cancellation by the Secretary or the Lessee to a penalty of not more than FIVE HUNDRED DOLLARS (\$500) a day for each and every day the terms of the lease, the regulations, or such orders are violated; or to both such penalty and cancellation; provided, that Lessee shall be entitled to notice and hearing within 30 days after such notice, with respect to the terms of the lease, regulations, or orders violated, which hearing shall be held by the Area Director or the Supervisor, whose findings shall be conclusive unless an appeal be taken to the Secretary pursuant to 25 CFR Part 2, 30 CFR Part 290, 43 CFR Part 23 and subtitle B, Chapter II.

XXXIV. CANCELLATION AND FORFEITURE. When, in the opinion of the Secretary, there has been a violation of any of the terms or conditions of this lease before restrictions are removed, the Secretary has the right at any time after 30 days notice to the Lessee, specifying the terms and conditions violated, and after a hearing, if the Lessee shall so request within 30 days of receipt of notice, to declare this lease void and the Lessor may then take immediate possession of the land provided Lessee does not cure its default within 30 days or, if Lessee requests a hearing and does not cure its defaults within 20 days after the final decision resulting from said hearing. After restrictions are removed, the Lessor may use any available remedy in law or equity for breach of this contract by the Lessee. The remedies specified hereunder are in addition to remedies specifically provided in 25 CFR 172 and 177.

XXXV. OBLIGATIONS. While the leased land is in trust or restricted status, all of the Lessee's obligations under this lease and the obligations of his sureties, are to the United States as well as the owners of the land.

XXXVI. PAST DUE PAYMENTS. Any and all payments specified in this lease, including but not limited to royalty and rent unpaid as of the due date shall bear interest at the rate of 10% per annum from the date payments become due until paid and such payments shall not provide exclusion from any default provision of the lease.

Acknowledgments must be in accordance with the forms prescribed by the State in which the land is situated.

STATE OF New Mexico  
COUNTY OF Bernalillo ss:

BE IT REMEMBERED, That on this 24th day of March, A. D. 1980  
before the undersigned, a Notary Public in and for the County and State  
foresaid, personally appeared G. Warnock  
me personally known to be the identical person(X) who executed the within  
strument of writing, and such person(X) duly acknowledged the execution of the  
same.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my seal  
the day and year last hereinabove written.



OFFICIAL SEAL  
Signature Diane C. Tye  
DIANE C. TYE  
NOTARY PUBLIC - NEW MEXICO  
Notary Bond Filed with Secretary of State  
My Commission Expires 6-21-80

XXXVII. NOTICES AND PAYMENTS. All notices, payments and demands shall be sent to the addresses herein recited or to such address as the parties may hereafter designate in writing.

Area Director  
Bureau of Indian Affairs  
Navajo Area Office  
Window Rock, Arizona

Area Mining Supervisor  
U.S. Geological Survey  
505 Marquette Ave. N.W.  
Albuquerque, New Mexico 87102

Agency Superintendent  
Bureau of Indian Affairs  
Eastern Navajo Agency  
Crownpoint, New Mexico

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the dates opposite their respective signatures.

WITNESSES:

LESSEE:

[Signature]  
(Name)  
H. B. Warnock

TODILTO EXPLORATION & DEVELOPMENT CORPORATION

3809 Camino Sacramento, NE  
ATD., NM (Address)

By

[Signature]  
G. Warnock

Date 3-24-80

[Signature]  
(Name)  
Timothy J. Pearson  
10605 Ralph Avenue, NE  
Alb., NM (Address)

3810 Academy Parkway South, NE  
(Address)

WITNESSES:

LESSOR:

[Signature]  
(Name)  
#  
Box 262 Prewitt N.M.  
(Address) 87045

BROWN VANDEVER Date 3-24-80

Brown Vandever #6841  
(Printed or typed name & census number)

(Name)

P. O. Box 262, Prewitt, New Mexico  
(Address)

(Address)

~~CANCELED~~

(13)

~~AREA DIRECTOR~~



\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Signature) Date \_\_\_\_\_

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Printed or typed name & census #)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

Approved under authority of memorandum dated November 2, 1979 from the Acting Deputy Commissioner, Bureau of Indian Affairs, to the Navajo Area Director.

APR - 9 1980  
\_\_\_\_\_  
Date

*Led L. Kaunf*  
\_\_\_\_\_  
ACTING Area Director

*8/18/88 4-7-80*  
**CANCELED**  
*[Signature]*  
**ACTING AREA DIRECTOR**  
*8/18/88 Humorgan*  
*8/18/88 Espinoza*

- (d). In the event, there have been no sales of uranium or vanadium concentrates, or minerals associated therewith, in the six months preceding the period for which royalty is being computed, or for other undefined circumstances, the Secretary or his authorized representative may establish reasonable minimum values for the purpose of computing royalty on any of the leased deposits, due consideration being given to the highest price paid for a part or a majority of the products of like quality produced from the same general area, the price received by the lessee, posted prices, and other relevant matters.

## URANIUM ROYALTY SCHEDULE

Royalty: to pay or cause to be paid to the Bureau of Indian Affairs, Area Director, Navajo Area Office, Window Rock, Arizona, for the use and benefit of the lessor, a royalty calculated by the following formula:

$$\text{Percentage Royalty Rate} = 6.00\% + 0.05\% \left( \frac{\text{(Value per dry ton)}}{\$1.00} \right)$$

The percentage royalty rate derived by the above formula is to be applied to the "value per dry ton" as defined below for the purpose of determining the amount of royalty due.

(a) "Value per dry ton", wherever used herein, is defined as follows:

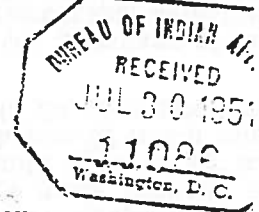
The value, expressed in dollars, of a dry ton (2,000 lbs.) of crude uranium ore, such value to be determined by multiplying the weighted average content per dry ton of uranium concentrate in the crude ore produced from the leased premises, by the weighted average price per pound paid for all uranium concentrate obtained from said ore when sold by the lessee, or company processing lessee's ore during the period for which royalty is being computed. If there are no sales of uranium concentrate during the period for which royalty is being computed, the price of uranium concentrate applied will be the weighted average price per pound received by the lessee or company processing lessee's ore then concentrates were sold during the preceding six month period.

- (b) Whenever vanadium and other minerals associated with uranium are recovered and sold by the lessee, or company processing lessee's ore, the lessee shall pay to or for the benefit of the lessor a royalty of ten (10) percent of the gross proceeds derived from such sale; and where the lessee retains possession of the associated mineral products, a separate royalty value will be negotiated.
- (c) The lessee agrees to pay to or for the benefit of the lessor a royalty of ten (10) percent of the value of uranium concentrate recovered from mine waters (whether natural or introduced); from leaching ores in place on the leased lands or from leaching such materials after they have been mined (unless the crude ore has been weighed and assayed prior to leaching) or extracted from the leased lands; or from leaching the waste material resulting from the treatment of ores from the leased lands. The value of uranium concentrate, as used herein, shall be the weighted average price per pound paid for all uranium contained in concentrate, at the processing plant producing such concentrate, during the period for which royalty is being computed, except that if no sales have been made during the period for which royalty is being computed, the value of uranium concentrate shall be the weighted average price per pound received by the lessee or the seller of lessee's concentrate during the preceding six (6) months.

Copy mailed to Washington

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OFFICE OF INDIAN AFFAIRS

Contract No. I-149-74-1973



**MINING LEASE ALLOTTED INDIAN LANDS**  
(For Minerals other than Oil and Gas)

Grant Mining Lease Lease Reservation  
(Write all names and addresses in full)

THIS INDENTURE OF LEASE, made and entered into in quintuplicate, on this 7 day of June, 1951, by and between State of Idaho

allottee No. 07021 of the Shoshone tribe of Indians,  
of Boise, State of Idaho  
part 1 of the first part, hereinafter called the lessor, and State of Idaho  
State of Idaho, of Idaho

State of Idaho, part 1 of the second part, hereinafter called the lessee, under and in pursuance of the provisions of existing law and the rules and regulations prescribed by the Secretary of the Interior relative to mining leases covering restricted Indian allotments.

WITNESSETH Cash bonus of \$750.00

1. That the lessor, for and in consideration of \$750.00 receipt whereof is hereby acknowledged, and of the royalties, covenants, stipulations, and conditions hereinafter contained and hereby agreed to be paid and observed by the lessee, doth hereby demise, grant, and lease unto the said lessee, the following-described tract of land lying and being within the \_\_\_\_\_

Reservation, county of Blaine, and State of Idaho  
to wit: 1000 E. 1/2 Sec. 6.

of section 15, township 11 N., range 10 E., \_\_\_\_\_ meridian, and containing 16.34 acres, more or less, for the full term of 15 years from the date of approval hereof, for the sole purpose of prospecting for and mining minerals, as follows: \_\_\_\_\_

the lessee to occupy so much only of the surface of said land as may be reasonably necessary to carry on the work of prospecting for, mining, milling, storing, and removing such minerals.

2. The term "Superintendent" as used herein shall refer to the superintendent or other official in charge of the Indian Agency having jurisdiction over the lands leased.

3. In consideration of the foregoing, the lessee hereby agrees:

(a) **ROYALTY.**—To pay, or cause to be paid, to the Superintendent, for the use and benefit of the lessor, as royalties, the sums of money as follows, to wit:\*

All royalties accruing for any month shall be due and payable on or before the twenty-fifth day of the month succeeding.

*500 w.  
1000*  
(b) **ANNUAL RENTAL.**—To pay, or cause to be paid, to the Superintendent for the use and benefit of the lessor, in advance beginning with the date of approval of the lease, as annual rental, the following: Twenty-five cents per acre for the first calendar year or fraction thereof, 50 cents per acre per annum for the second and third years, and \$1 per acre per annum in advance for each and every calendar year thereafter during the continuance of the lease; it being understood and agreed that said sum so paid shall be a credit on the royalties accruing during the year for which the payment of annual rental is made, and that said annual rental when paid shall not be refunded to the lessee because of any subsequent surrender or cancellation hereof.

(c) **DILIGENCE, PREVENTION OF WASTE.**—To exercise diligence in the conduct of prospecting and mining operations; to carry on development and operations in a workmanlike manner and to the fullest possible extent; to commit no waste on the said land and to suffer none to be committed upon the portion in his occupancy or use; to comply with all the requirements of the laws of the State in which the land is located; to take appropriate steps for the preservation of the property and the health and safety of workmen; promptly to surrender and return the premises upon the termination of this lease to whomsoever shall be lawfully entitled thereto, in as good condition as received, excepting for the ordinary wear and tear and unavoidable accidents in their proper use; not to remove therefrom any buildings or permanent improvements erected thereon during the said term by the said lessee, but said buildings and improvements shall remain a part of said land and become the property of the owner of the surface of the land, excepting the office fixtures and records, personal property, tools, pumping and drilling outfits, boilers, engines, and mining machinery, which shall remain the property of the lessee and may be removed at any time prior to 30 days after the termination of the lease by forfeiture or otherwise, provided the payments agreed upon by this lease have been made and the lease terms and regulations applicable thereto have been fully complied with, but not otherwise; not to permit any nuisance to be maintained on the premises under lessee's control, nor allow any intoxicating liquors to be sold or given away for any purpose on such premises; and not to use such premises for any other purposes than those authorized in this lease.

(d) **DEVELOPMENT.**—The land described herein shall not be held by the lessee for speculative purposes, but in good faith for mining the minerals specified; and the failure by the lessee in the diligent development and continued operation of the mine or mines, except when operations may be interrupted by strikes, the elements, or casualties not attributable to the lessee, shall be held as a want of compliance with the purposes of this lease and shall render it subject to cancellation: *Provided*, That whenever the Secretary of the Interior shall consider the marketing facilities inadequate or the economic conditions unsatisfactory, he may authorize the suspension of operations for such time as he may deem advisable, but such action will not release the lessee from the payment of the advance annual rental.

(e) **MONTHLY STATEMENTS.**—To keep an accurate account of all mining operations, showing the sales, prices, dates, purchasers, and the whole amount of minerals mined, the amount removed, and the gross receipts derived therefrom, and to furnish the Superintendent sworn monthly reports thereon not later than the twenty-fifth of the succeeding month; and all sums due as royalty and advance rental shall be a lien on all implements, tools, movable machinery, and all other personal chattels used in operation upon said property, and upon all of the unsold minerals obtained from the land herein leased, as security for payment of said sums. An audit of the lessee's accounts and books shall be made annually or at such times as may be directed by the Superintendent by certified public accountants approved by the Secretary of the Interior and at the expense of the lessee. The lessee shall furnish free of cost a copy of such audits to the Secretary of the Interior through the Superintendent within 30 days after the completion of each auditing.

(f) **REGULATIONS.**—To abide by and conform to any and all regulations of the Secretary of the Interior now or hereafter in force relative to such leases: *Provided*, That no regulations hereafter approved shall effect a change in rate of royalty, the annual rental herein specified, or the term of this lease, without the written consent of the parties to this lease.

\* Here insert the royalties agreed upon in accordance with applicable regulations.

(g) ASSIGNMENT OF LEASE.—Not to assign this lease or any interest therein by an operating agreement or otherwise nor to sublet any portion of the leased premises before restrictions are removed, except with the approval of the Secretary of the Interior. If this lease is divided by the assignment of an entire interest in any part of it, each part shall be considered a separate lease under all the terms and conditions of the original lease.

(h) BOND.—To furnish such bond as may be required by the regulations of the Secretary of the Interior conditioned upon compliance with the terms of this lease.

4. MILLING.—All ores or minerals mined on said land shall be cleaned and prepared for market thereon, and no ore or crushed material shall be removed therefrom to be cleaned or prepared for market without the written consent of the Secretary of the Interior.

5. INSPECTION.—The leased premises and producing operations, improvements, machinery and fixtures thereon and connected therewith, and all books and accounts of the lessee shall be open at all times for inspection by the lessor and his agents or any duly authorized representative of the Secretary of the Interior.

6. DISPOSITION OF SURFACE.—The lessor expressly reserves the right to lease, sell, or otherwise dispose of the surface of the lands embraced within this lease under existing law or laws hereafter enacted, such disposition to be subject at all times to the right of the lessee herein to the use of so much of said surface as is necessary in the extraction and removal of the minerals from the land herein described in accordance with this lease.

7. SURRENDER AND TERMINATION.—The lessee shall have the right at any time during the term hereof to surrender and terminate this lease or any part thereof upon the payment of all rentals, royalties, and other obligations due and payable to the lessor, and the further sum of \$1, and in the event restrictions have not been removed, upon a showing satisfactory to the Secretary of the Interior that full provision has been made for the conservation and protection of the property, the lease to continue in full force and effect as to the lands not so surrendered. If this lease has been recorded lessee shall file a recorded release with his application to the Superintendent for termination of this lease.

8. CANCELANON AND FORFEITURE.—When, in the opinion of the Secretary of the Interior, there has been a violation of any of the terms and conditions of this lease before restrictions are removed, the Secretary of the Interior shall have the right at any time after 30 days' notice to the lessee, specifying the terms and conditions violated, and after a hearing, if the lessee shall so request within 30 days of receipt of notice, to declare this lease null and void, and the lessor shall then be entitled and authorized to take immediate possession of the land: *Provided*, That after restrictions are removed the lessor shall have and be entitled to any available remedy in law or equity for breach of this contract by the lessee.

9. RELINQUISHMENT OF SUPERVISION BY THE SECRETARY OF THE INTERIOR.—Should the Secretary of the Interior, at any time during the life of this instrument, relinquish supervision as to all or part of the acreage covered hereby, such relinquishment shall not bind lessee until said Secretary shall have given 30 days' written notice. Until said requirements are fulfilled, lessee shall continue to make all payments due hereunder as provided in section 3 (a) and (b). After notice of relinquishment has been received by lessee, as herein provided, this lease shall be subject to the following further conditions:

(a) All rentals and royalties thereafter accruing shall be paid directly to lessor or his successors in title.

(b) If, at the time supervision is relinquished by the Secretary of the Interior as to all lands included in this lease, lessee shall have made all payments then due hereunder, and shall have fully performed all obligations on its part to be performed up to the time of such relinquishment, then the bond given to secure the performance hereof, on file in the Indian Office, shall be of no further force or effect.

10. HEIRS AND SUCCESSORS IN INTEREST.—It is further covenanted and agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors of, or assigns of the respective parties hereto.

11. GOVERNMENT EMPLOYEES CANNOT ACQUIRE LEASE.—No lease, assignment thereof, or interest therein will be approved to any employee or employees of the United States Government whether connected with the Indian Service or otherwise, and no employee of the Interior Department shall be permitted to acquire any interest in such leases by ownership of stock in corporations having leases or in any other manner.



IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above mentioned.

TWO WITNESSES TO EXECUTION BY LESSOR:

M. D. Long [SEAL]

P. O. Window Rock, Ariz

Ruby Foster [SEAL]

P. O. Window Rock, Ariz

TWO WITNESSES TO EXECUTION BY LESSEE:

M. D. Long [SEAL]

P. O. Window Rock, Ariz

Ruby Foster

P. O. Window Rock, Ariz Attest:

State of Arizona  
County of Apache ss:

ACKNOWLEDGMENT OF LESSOR

Before me, a notary public, on this 7th day of June, 1951, personally appeared MYSELF, to me known to be the identical person who executed the within and foregoing lease, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

My commission expires Feb. 29, 1952 In and for the County of Pima,  
State of Arizona Notary Public.

UNITED STATES  
DEPARTMENT OF THE INTERIOR

Washington, D. C., \_\_\_\_\_, 19\_\_\_\_  
~~The within lease is hereby approved.~~

Approved under day of \_\_\_\_\_  
by Secretary of the Interior, \_\_\_\_\_  
January 11, 1949 (14 F.R. 2553,  
and Order No. 551, Amendment 3,  
16 F.R. 8252).  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS  
WASHINGTON 25, D.C.  
APPROVED:  
\_\_\_\_\_  
Chief, \_\_\_\_\_  
Rental received, \$ 1.50

STIPULATION

Modifying allotted land mining lease Contract No. I-149-Ind-8913.

WHEREAS, above numbered mining lease was made for the sole purpose of prospecting for and mining minerals, as follows:

"Uranium and related minerals."

This amendment shall not effect any of the other provisions of said lease and said lease as originally signed shall remain in force and unaltered except as to the modification herein set out.

It is therefore agreed that the wording "Uranium bearing ores", is hereby substituted for "Uranium and related minerals."

WITNESSES TO SIGNATURES:

Brown Vandever (his thumb print)  
Brown Vandever, Lessor

Glenn D. Williams  
Glenn D. Williams, Lessee

J. T. Hutton  
J. T. Hutton, Lessee

ACKNOWLEDGMENT OF LESSOR

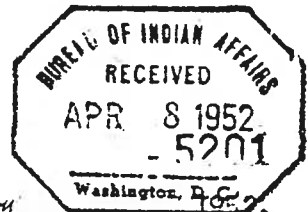
STATE OF NEW MEXICO

COUNTY OF MCKINLEY

ss

BEFORE ME, a Notary Public, on this 29<sup>th</sup> day of January, personally appeared Brown Vandever, to me known to be the identical person who executed the foregoing stipulation, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

[Signature]  
Notary Public



CONSENT OF SURETY

~~GENERAL SURETY AND INSURANCE CORPORATION~~, surety for Glenn D. Williams and J. T. Hutton on the bond accompanying the lease above designated, hereby consents to the foregoing modification and agrees that said bond shall remain in full force and effect covering obligations of the lessees.

Dated at Denver, Colorado this 4<sup>th</sup> day of March 1952.

~~GENERAL SURETY AND INSURANCE CORPORATION~~

[Signature]  
(Leonard Stenbins)  
Attorney-in-Fact

## STIPULATION

Modifying Allotted Land Mining Lease Contract No. I-149-ind-8913.

Above numbered mining lease is hereby modified to provide as follows:

"Wherever minerals or other products are recovered which are not included in determining mine value per dry ton as defined on page one of continuation sheet of form 5-154 attached and made a part of said lease, there shall be paid to the lessor for such minerals or other products, a royalty of 10 per cent of the gross value of such products."

This modification shall not effect any of the other provisions of said lease and said lease shall remain in force and unaltered except as to the modification herein set out.

Witnesses to Signatures:

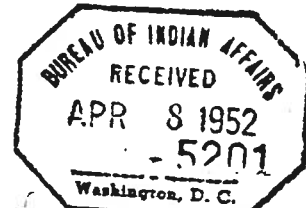
Brown Vandever (Signature)  
Brown Vandever, Lessor

Glenn D. Williams (Signature)  
Glenn D. Williams, Lessee

J. T. Hutton (Signature)  
J. T. Hutton, Lessee

### ACKNOWLEDGMENT OF LESSOR

STATE OF NEW MEXICO )  
( SS  
COUNTY OF MCKINLEY )



BEFORE ME, a Notary Public, on this 8th day of March 1952, personally appeared Brown Vandever, to me known to be the identical person who executed the foregoing stipulation, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

My Commission expires: 5/28/53

(Signature)  
Notary Public

### CONSENT OF SURETY

CENTRAL SURETY AND INSURANCE CORPORATION, surety for Glenn D. Williams and J. T. Hutton on the bond accompanying the lease above designated, hereby consents to the foregoing modification and agrees that said bond shall remain in full force and effect covering obligations of the lessee.

Dated at Kansas City, Missouri this 18th day of March 1952.

CENTRAL SURETY AND INSURANCE CORPORATION

By (Signature)  
R. W. Wyatt, Attorney-in-fact

**MINING LEASE ALLOTTED INDIAN LANDS**  
(For Minerals other than Oil and Gas)

The Lessee hereby agrees to pay or cause to be paid to the Superintendent for the use and benefit of the Lessor, as royalty, the sums of money as follows:

Percentage Royalty Schedule

| <u>Mine Value Per Dry Ton</u> | <u>Royalty Percentage of<br/>Mine Value Per Dry Ton</u> |
|-------------------------------|---|
| \$ 0.01 to \$ 10.01           | 10%   |
| \$ 10.01 to \$ 20.01          | 11%   |
| \$ 20.01 to \$ 30.01          | 12%   |
| \$ 30.01 to \$ 40.01          | 13%   |
| \$ 40.01 to \$ 50.01          | 14%   |
| \$ 50.01 to \$ 60.01          | 15%   |
| \$ 60.01 to \$ 70.01          | 16%   |
| \$ 70.01 to \$ 80.01          | 17%   |
| \$ 80.01 to \$ 90.01          | 18%   |
| \$ 90.01 to \$100.01          | 19%   |
| \$100.01 or more              | 20%   |

*Don  
J. H.  
Vandover*

"MINE VALUE PER DRY TON", wherever used herein is hereby defined as the dollar value per dry ton of crude ores at the mine as paid for by the Atomic Energy Commission or other government agency before allowance for transportation and development; however, if the government at any time hereafter does not establish and pay for said ores on a fixed or scheduled dollar value per dry ton of crude ores at the mine, or said ores contain saleable minerals, some, or all, of which are disposed of to a custom treatment plant or smelter for treatment and sale, then mine value per dry ton shall be the gross value per dry ton of said crude ore as paid for by the Atomic Energy Commission or other government authorized agency mill or other buyer, less any allowances or reimbursements for the following specific items: (1) transportation of ores; (2) allowances for exploration for, or development of ores; and (3) treatment or beneficiation of ores; which specific items shall in such event be deducted from the gross sales price received from the metal content of said ores by the seller before said percentage royalty is calculated and paid. Such payments shall be made on or before the fifteenth (15th) day of the month next following receipt by Lessee of payment for said ores together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.

*Trans  
E. Lang  
J. H. H.*

In addition to the above royalty payments there shall be paid to the Superintendent for the use and benefit of the Lessor 10% of any bonus paid by the United States Atomic Energy Commission for the production of ore from the above lease and particularly bonuses for the initial production of uranium ore from said lease. But this provision shall not be limited to bonuses for initial production but shall apply to any and all bonuses paid for the production of ore.

### Annual Rental

The Lessee agrees to pay or cause to be paid to the Superintendent for the use and benefit of the Lessor, in advance beginning with the date of approval of the lease as annual rental, the sum of One (\$1.00) Dollar per acre for the first calendar year and the sum of One (\$1.00) Dollar per acre, in advance, for each and every calendar year thereafter during the continuation of this lease.

The rentals so paid shall not be a credit on the royalties accruing under this lease and shall not be refunded to the Lessee because of any subsequent surrender or cancellation of the lease.

### Development

The land described herein shall not be held by the Lessee for speculative purposes but in good faith for mining mineral specified. The Lessee shall expend in the development of said lease in each year the sum of Ten (\$10.00) Dollars per acre. Such development shall consist of road building, prospecting or drilling and mining operations, and the Lessee shall each year submit to the Superintendent satisfactory reports regarding development expenditures, which reports shall be furnished within ten (10) days after the yearly anniversary date of the lease; and failure by the Lessee in the diligent development and continued operation of the mine or mines, or the expenditures of the sum provided herein for the development of said lease in each year except when the operations may be interrupted by strikes, the elements or casualties not attributable to the Lessee, shall be held as want of compliance with the purposes of this lease and shall render it subject to cancellation; provided that whenever the Secretary of the Interior shall consider the marketing facilities inadequate or economical conditions unsatisfactory he may authorize the suspension of operations for such time as he may deem advisable but such action will not release the Lessee from the payment of the advance annual rental.

### Payment for Surface Damage

The Lessee shall pay to the Superintendent for the use and benefit of the Lessor, as damage to the surface of the lands covered by this lease, Ten (\$10.00) Dollars per acre for each acre of land upon which the vegetation of any kind is destroyed or on which the top soil may be removed, turned or damaged by the mining operations conducted on said lease, but not including the reasonable use of the surface for roads and the construction of facilities for the operation of this lease. Provided, however, that in the event the royalty payments made under this lease shall equal or exceed the amount due for surface damages as provided in this paragraph then and in that event the Lessee shall be released from the obligation to pay such surface damages.

The Lessee shall not be permitted to surrender or terminate this lease until the damages provided for in this paragraph have been paid and in the event of the cancellation or forfeiture of this lease by the Secretary of the Interior as provided in said lease, the Lessee shall remain obligated to pay for surface damages as herein provided and the bondsmen of the Lessee shall not be released from liability until such surface damages are paid. The extent of the surface damages and the amount due therefor, shall be determined by the Secretary of the Interior.

The lessee shall employ Navajo labor in all positions for which they are qualified, including truck drivers, and shall protect the Indian grazing rights and other Indian rights to the surface of the lands.

The lessee shall not discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and shall require an identical provision to be included in all sub-contracts hereunder.

Two witnesses to signature  
of Lessee

M. D. Long

John Foster

Two witnesses to signature  
of Lessor

M. D. Long

John Foster

John Foster

Lessee

(Attest)

Brown Vanderer

Lessor

Lessor

Lessor

Lessor

Lessor

Lessor



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS

RECEIVED

14-20-0603-8347

CONTRACT No. ....

AUG 13 1964

U. S. Geological Survey  
Carlsbad, N. M.

MINING LEASE INDIAN LANDS

(For Minerals other than Oil and Gas)

Uranium Mining Lease Allotted Land Reservation

THIS INDENTURE OF LEASE, made and entered into in sextuplicate, on this 7th day of

July, 1964, between The General Superintendent, Navajo Agency, for and

on behalf of Jonie Desederio, Marie Desederio, Harry Desederio, John Desederio Jr.,

Jean Ann Desederio, Zeta Catherine Desederio, Jimson Desederio, Terry Desederio,

and Mary Desederio  
minor legal heirs of Ma tah nah gah Desederio - Allottee No. 059337 (Probate No.

7197-60)

McKinley County

New Mexico

of , State of , part 7 of the first part, herein-

after called the lessor, and Allen E. Sphar & Robert L. Allmon, dba S & A Mining Company,

Box 2505, Milan

New Mexico

of , State of , part 7 of the second part,  
hereinafter called the lessee

WITNESSETH:

I, Lessor, in consideration of \$1, receipt of which is hereby acknowledged, of the rent and royalty to be paid, and of the agreement of the lessee herein contained, grants and leases unto lessee for the sole purpose of prospecting for and

mining minerals, as follows: Uranium and other minerals associated therewith

the land described as follows: Allotment No. 059337 NORTHEAST QUARTER (NE/4)

section 26, township 13N., range 10W., New Mexico Navajo Allotted

Reservation, McKinley New Mexico County, State of , and containing

160.00

acres, more or less. The lessee may occupy as much of the surface of the land as is necessary to carry on the work of prospecting for and mining, preparation, and removal of said minerals, including milling and storing.

II. TERM.—Subject to the other provisions herein contained, this lease is for a term of 10 years from the date of its approval and as long thereafter as the minerals specified are produced in paying quantities.

III. DEFINITION.—Superintendent refers to the official in charge of the Indian Agency that has jurisdiction over the lands leased.

IN CONSIDERATION OF THE FOREGOING, THE LESSEE AGREES:

(1) ROYALTY.—To pay, or cause to be paid, to the General Superintendent, Navajo Agency,  
Window Rock, Arizona (Make checks payable to "Bureau of Indian Affairs")

for the use and benefit of the lessor, a royalty as follows: SEE ATTACHED SCHEDULE EXHIBIT "A"

All royalty accruing for any month shall be due and payable before the twenty-fifth day of the following month. During the period that the land is under Federal jurisdiction, the royalty provisions of this lease shall be subject to reasonable adjustment by the Secretary of the Interior or his authorized representative at the end of the first and each successive 10-year period, such adjustment being based upon market conditions as supported by evidence from the field.

(a) MINIMUM ROYALTY.—To pay, or cause to be paid, to the Superintendent for the use and benefit of the Indian landowners, at the expiration of each lease year, commencing with the ..... lease year, a minimum royalty of \$..... per acre, or, if there is production, the difference between the actual royalty paid during the year and the prescribed minimum royalty, if the actual royalty paid is less than the minimum royalty.

(2) ANNUAL RENTAL.—To pay, or cause to be paid, to the General Superintendent for the use and benefit of the lessor, in advance, beginning with the date of approval of the lease, as annual rental, the sum of One Dollar (\$1) per acre for the first lease year, and One Dollar (\$1) per acre per year, in advance of each anniversary date of the lease, for each and every year thereafter during the continuance of the lease. The rent is not to be credited on the royalties accruing to the lessor under this lease. If the lease is surrendered or canceled, no rent accruing to the lessor will be refunded.

(3) DILIGENCE, PREVENTION OF WASTE.—To exercise diligence in the conduct of prospecting and mining operations, to carry on development and operations in a workmanlike manner and to the fullest possible extent; to neither commit nor suffer waste to be committed upon the land leased; to comply with the applicable laws of the State in which the land is located; to take appropriate steps to preserve the property and provide for the health and safety of workmen; to surrender and return promptly the premises upon the termination of this lease to whoever is lawfully entitled thereto, in as good condition as received, except for the ordinary wear and tear and unavoidable accidents in their proper use of the premises; not to remove any building or permanent improvement erected on the leased property during the lease. If the payments agreed upon by this lease have been made and the other lease terms and applicable regulations have been complied with, the office fixtures and records, personal property, tools, pumping, and drilling outfits, boilers, engines, and mining machinery may be removed by the lessee at any time before 60 days after the lease expires by forfeiture or otherwise.

(4) FOREST PROTECTION.—The lessee agrees:

(a) Not to cut, destroy or damage timber without prior authority of the Commissioner of Indian Affairs or his authorized representative, such authorization to be made only where required by the pursuance of necessary mining operations.

(b) To pay for all such timber cut, destroyed or damaged at rates prescribed by the Commissioner of Indian Affairs or his authorized representative, such rates to be determined on the basis of sales of similar timber in the vicinity.

(c) Not to interfere with the sale or removal of timber from the land covered by this lease by contractors operating under an approved timber sales contract now in effect or which may be entered into during the period of this lease.

(d) To do all in its power to prevent and suppress forest, brush or grass fires on the leased land and in its vicinity, and to require its employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. To place its employees, its contractors, subcontractors, and the employees of such contractors or subcontractors employed on the leased land at the disposal of any authorized officer of the Indian Service for the purpose of suppressing forest, brush or grass fires with the understanding that the payment for such services shall be made at rates to be determined by the Commissioner of Indian Affairs or his authorized representative, which rates shall not be less than the rates of pay prevailing in the vicinity for services of similar character: *Provided*, That no payment shall be made for services rendered in the suppression of fires for which the lessee, its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible.

(e) To pay for the loss of all timber ten inches or more in diameter occasioned by fires for which it, or any of its employees, its contractors, subcontractors, or the employees of such contractors or subcontractors are responsible for the start or spread, the assessment of the value of such damages to be determined by the Commissioner of Indian Affairs or his authorized representative on the basis of the value of such timber on sales of similar timber in the vicinity. Also, to pay liquidated damages of ~~ten~~ six dollars (\$ 10.00) per acre for all young timber less than ten (10) inches in diameter destroyed by such fires unless a lesser rate of damages shall be approved by the Commissioner of Indian Affairs, and to pay all costs for the suppression of fires for which it, or any of its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible.

(f) Not to burn rubbish, trash, or other inflammable materials except with the consent of the authorized representative of the Commissioner of Indian Affairs, and not to use explosives in such manner as to scatter inflammable materials on the surface of the land during the fire season, except as authorized to do so by such representative.

(5) DEVELOPMENT.—The land described herein shall not be held by the lessee for speculative purposes, but for mining the minerals specified. The lessee shall begin operations within six months from the effective date of this lease. The lessee shall spend annually in actual mining operations, development, and improvements upon the leased land, or for the benefit of the leased land, including the annual rental, not less than eleven Dollars (\$ 11.00) per acre. The lessee shall file with the Superintendent an itemized statement, in duplicate, within 20 days after each lease year, of the amount and character of the expenditures during the lease year. The statement must be certified under oath by the lessee or its agent. If the lessee fails to diligently develop or operate the mine, except when operation is interrupted by a strike, an act of God, or casualty not attributable to the lessee, this lease will be subject to cancellation. Whenever the Secretary of the Interior or his authorized representative considers the marketing facilities inadequate or the economic conditions unsatisfactory, he may authorize the suspension of operations for such time as he considers advisable, but this does not release the lessee from paying the advance annual rental. Payment of minimum royalty will not excuse complying with the provisions of this section.

(6) MONTHLY STATEMENTS.—To keep an accurate record of the mining operations, showing the sales, prices, dates, purchasers, and the amount of minerals mined, the amount of minerals removed, and the gross receipts, and to furnish the Superintendent sworn monthly reports before the twenty-fifth of the succeeding month. All royalty and advance rental due shall be a lien on all implements, tools, movable machinery, and all other chattels used in the operation and upon all of the unsold minerals obtained under the lease. An audit of the accounts and books of the lessee shall be made annually or at any other time directed by the Superintendent by a certified public accountant approved by the Secretary of the Interior and at the expense of the lessee. The lessee shall furnish, through the Superintendent, a free copy of the audit to the Secretary of the Interior within 30 days after the completion of each audit.

(7) REGULATIONS.—To abide by and conform to any and all regulations of the Secretary of the Interior now or hereafter in force relative to such leases including 25 CFR 172, and 30 CFR 231. Rate of royalty, the annual rental, or the term of the lease may not be changed by a future regulation without the written consent of the parties to this lease.

(8) ASSIGNMENT OF LEASE.—Not to assign this lease or any interest therein by an operating agreement including agreements providing for payment of overriding royalty or otherwise, nor to sublet any portion of the leased premises before restrictions are removed, except with the approval of the Secretary of the Interior. If this lease is divided by the assignment of an entire interest in any part of it, each part shall be considered a separate lease under all the terms and conditions of the original lease.

(9) BOND.—To furnish to the Superintendent an acceptable surety bond in the amount of two thousand Dollars (\$ 2,000.00). The right is reserved to the Secretary of the Interior or his authorized representative to increase the amount of bond above the sum named.

(10) LIQUOR.—The lessee further agrees that it will not use or permit to be used any part of said premises for any unlawful conduct or purpose whatsoever; that it will not use or permit to be used any part of said premises for the manufacture, sale, gift, transportation, drinking, or storage of intoxicating liquors or beverages in violation of existing laws relating thereto, and that any violation of this clause by the lessee or with its knowledge, shall render this lease voidable at the option of the Superintendent.

(11) INSPECTION.—The leased premises, producing operations, appurtenances, and all books and accounts of the lessee may be inspected by the lessor and its agents or any authorized representative of the Secretary of the Interior.

(12) DISPOSITION OF MINERALS AND SURFACE.—The lessor expressly reserves the right to lease, sell, or otherwise dispose of the oil and gas and the surface of the lands in this lease under existing law or laws hereafter enacted, such disposition to be subject to the right of the lessee to use as much of the surface as is necessary in the extraction and removal of the minerals from the leased land.

(13) SURRENDER AND TERMINATION.—The lessee may at any time terminate this lease or any part thereof upon the payment of all rentals, royalties, and other obligations due to the lessor, and the further sum of \$5, and in the event restrictions have not been removed, upon a showing satisfactory to the Secretary of the Interior or his authorized representative

that full provision has been made for the conservation and protection of the property, the lease to continue in full force and effect as to the lands not so surrendered. If this lease has been recorded, lessee shall file a recorded release with its application to the Superintendent for termination of this lease.

(14) RELINQUISHMENT OF SUPERVISION BY THE SECRETARY OF THE INTERIOR.—Should the Secretary of the Interior, at any time during the life of this instrument, relinquish supervision as to all or part of the acreage covered hereby, the relinquishment does not bind the lessee until the Secretary has given 30 days' written notice. Until the requirements are fulfilled, lessee shall continue to make all payments due under subsections 1 and 2. After notice of relinquishment has been received by lessee, this lease is subject to the following further conditions:

(a) All rentals and royalties accruing shall be paid directly to lessor or its successors in title.

(b) If at the time supervision is relinquished by the Secretary of the Interior as to all lands under this lease, and lessee has made all payments due under the lease and has fully performed all obligations on its part to be performed up to the time of such relinquishment, then the bond given to secure the performance of the lease and on file in the Indian Office shall be of no further force or effect.

(15) WATER WELLS.—The lessee may, at its own expense, drill and equip water wells on the leased premises and agrees that all wells will be left intact and properly cased at the termination of the lease by expiration of its term or otherwise. Lessee shall have the right to remove all mechanical pumping equipment installed by it at any wells.

(16). DAMAGES.—The lessee shall conduct all operations authorized in this lease with due regard to preventing unnecessary damages to vegetation, timber, soil, roads, bridges, cattle-guards, fences, and other improvements, including construction, operation, or maintenance of any of the facilities on or connected with this lease which causes damage to the watershed or pollution of the water resources. On termination of operations under this lease, the lessee shall make provisions for the conservation, repair, and protection of the property and leave all of the areas on which the lessee has worked in a condition that will not be hazardous to life or limb, and will be to the satisfaction of the Superintendent.

(17) LIABILITY FOR DAMAGE.—The lessee is liable for any and all damages resulting from its operations under this lease; including injury to the lessor, the tenants, licenses and surface owners, and for any and all damage to, or destruction of, all property, caused by the lessee's operations hereunder. The lessee agrees to save and hold the lessor and the United States, its employees, licensees, and the surface owner or their tenants harmless from all suits for injury or claims for damages to persons and property resulting from the lessee's operations under this lease.

(18) ROADS.—The lessee may use existing roads, if any, on the land and may construct, and maintain, at its own expense, any additional roads across lessor's lands that are necessary in carrying on the actual mining, prospecting, and exploration work after the location of these roads has been approved in writing by the Superintendent of the Nava Jo Agency Agency. The public obtains no rights to these roads, and upon termination of this lease or if at any time it becomes unnecessary for lessee to use the road for conducting the operations authorized under this lease, the right to use the road shall thereupon cease and all the rights shall revert in lessor in accordance with law. The lessee shall hold the lessor and the United States harmless and indemnify them against any loss or damage that might result from the negligent construction or maintenance by lessee of the road. Installations made in connection with roads by the lessee may be removed by the lessee.

(19) INDIAN LABOR.—The lessee shall employ Indians, giving priority to lessor and other members of its tribe in all positions for which they are qualified and available and shall pay the prevailing wage rates for similar services in the area. The lessee shall do everything practicable to employ qualified Indians, giving priority to the lessor and other members of its tribe and their equipment in the hauling of all materials under this lease, insofar as the lessee does not use its own equipment for that purpose. Lessee agrees to make special efforts to work Indians, giving priority to the lessor and other members of its tribe into skilled, technical, and other higher jobs in connection with the lessee's operations under this lease.

(20) INSURANCE, SOCIAL SECURITY, TAXES, ETC.—The lessee agrees to carry such insurance covering all persons working in, on, or in connection with the leased premises for the lessee as will fully comply with the provisions of the statutes of the State of New Mexico covering workmen's compensation and occupational disease, as are now in force or as may be amended. Further, the lessee agrees to comply with all the terms and provisions of all applicable laws of the State of New Mexico, and of the United States of America as now exist or as may be amended, pertaining to Social Security, unemployment, compensation, wages, hours, and conditions of labor; and to indemnify and hold the lessor and the United States harmless from payment of any damages occasioned by the lessee's failure to comply with these laws. The lessee shall pay all taxes lawfully levied or assessed on the sale, severance, production, extraction, or removal of any of the minerals covered by this lease.

(21) HEIRS AND SUCCESSORS IN INTEREST.—It is further covenanted and agreed that each obligation under this lease shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors of, or assigns of the parties to this lease.

(22) GOVERNMENT EMPLOYEES CANNOT ACQUIRE LEASE.—No lease, assignment thereof, or interest therein will be approved to any employee or employees of the United States Government whether connected with the Indian Service or otherwise, and no employee of the Interior Department shall be permitted to acquire any interest in such leases by ownership of stock in corporations having leases or in any other manner.

(23) CANCELLATION AND FORFEITURE.—When, in the opinion of the Secretary of the Interior or his authorized representative, there has been a violation of any of the terms or conditions of this lease before restrictions are removed, the Secretary of the Interior or his authorized representative has the right at any time after 30 days' notice to the lessee, specifying the terms and conditions violated, and after a hearing, if the lessee shall so request within 30 days of receipt of notice, to declare this lease void, and the lessor may then take immediate possession of the lands. After restrictions are removed, the lessor may use any available remedy in law or equity for breach of this contract by the lessee.

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above mentioned.

TWO WITNESSES TO EXECUTION BY LESSOR:

\_\_\_\_\_ [SEAL]  
ACTING General Superintendent, Navajo Agency,  
P. O. \_\_\_\_\_ for and on behalf of the minor heirs  
\_\_\_\_\_ of Na tah nah gah Desederio [SEAL]

P. O. \_\_\_\_\_ Allotment No. 059387

TWO WITNESSES TO EXECUTION BY LESSEE:

\_\_\_\_\_ [SEAL]  
P. O. \_\_\_\_\_ Allen E. Sphar  
\_\_\_\_\_ Allen E. Sphar

P. O. \_\_\_\_\_  
\_\_\_\_\_ Attest: Robert L. Allmon  
\_\_\_\_\_ Robert L. Allmon  
P. O. \_\_\_\_\_

State of \_\_\_\_\_ } ss:  
County of \_\_\_\_\_ }  
APPROVED AUG 13 1964  
/s/ MELVIN HELANDER  
ACTING ASSISTANT AREA DIRECTOR

ACKNOWLEDGMENT OF LESSOR

Before me, a notary public, on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, personally  
appeared \_\_\_\_\_, to me known to be the identical person who  
executed the within and foregoing lease, and acknowledged to me that \_\_\_\_\_ executed the same as  
free and voluntary act and deed for the uses and purposes therein set forth.

\_\_\_\_\_  
Notary Public.  
My commission expires \_\_\_\_\_

**PERCENTAGE ROYALTY SCHEDULE**  
**For Uranium and other Minerals associated therewith.**

| MINE VALUE PER DRY TON | ROYALTY PERCENTAGE OF<br>MINE VALUE PER DRY TON |
|------------------------|---|
| \$ 0.01 to \$ 10.00    | 12. %   |
| \$ 10.01 to \$ 20.00   | 13.3%   |
| \$ 20.01 to \$ 30.00   | 14.6%   |
| \$ 30.01 to \$ 40.00   | 15.9%   |
| \$ 40.01 to \$ 50.00   | 17.2%   |
| \$ 50.01 to \$ 60.00   | 18.5%   |
| \$ 60.01 to \$ 70.00   | 19.8%   |
| \$ 70.01 to \$ 80.00   | 21.1%   |
| \$ 80.01 to \$ 90.00   | 22.4%   |
| \$ 90.01 to \$100.00   | 23.7%   |
| \$100.01 or more       | 25.0%   |

"MINE VALUE PER DRY TON," wherever used herein is hereby defined as the dollar value per dry ton of crude ores at the mine as paid for by the Atomic Energy Commission or other government agency before allowance for transportation and development; however, if the government at any time hereafter does not establish and pay for said ores on a fixed or schedule dollar value per dry ton of crude ores at the mine, or said ores contain saleable minerals, some, or all of which are disposed of to a custom treatment plant or smelter for treatment and sale, then mine value per dry ton shall be the gross value per dry ton of said crude ore as paid for by the Atomic Energy Commission or other Government authorized agency mill or other buyer, less any allowances or reimbursements for the following specific items; (1) transportation of ores; (2) allowances for exploration for, or development of ores; and (3) treatment of beneficiation of ores; which specific items shall in such event be deducted from the gross sales price received from the metal content of said ores by the seller before said percentage royalty is calculated and paid. Such payments shall be made on or before the twenty-fifth (25) day of the month next following receipt by lessee of payment for said ores together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.

Wherever used in this document the word "ores" shall mean only the ore of uranium and other minerals associated therewith; and the words "ores mined and sold" or similar words shall be construed and understood to mean ores mined and removed from the demised premises for the purpose of milling, treatment, stockpiling or other disposition, and not that ores must be sold as such.

In addition to the above royalty payments there shall be paid to the General Superintendent for the use and benefit of the lessor 10% of any bonus paid by the United States Atomic Energy Commission for the production of ore from the above lease and particularly bonuses for the initial production of uranium ore from said lease. This provision shall not be limited to bonuses for initial production but shall apply to any and all bonuses paid for production of ore.

ROYALTIES for all metallic minerals other than uranium and minerals associated therewith:

The lessee shall pay to the General Superintendent for the use and benefit of the Indian landowners a royalty of (10%) percent of the gross value of the ore as shown by the smelter returns. All royalties accruing for any month shall be due and payable before the 25th day of the month succeeding, together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.

RECEIVED

OCT 17 1957

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS

CONTRACT No. 14-29-0603-7240

U. S. Geological Survey  
Carlsbad, N. M.

MINING LEASE INDIAN LANDS  
(For Minerals other than Oil and Gas)

Uranium Mining Lease Navajo Reservation

THIS INDENTURE OF LEASE, made and entered into in sextuplicate, on this SEP 22 1962 day of

\_\_\_\_\_, 19\_\_\_\_, between \_\_\_\_\_

Brown Vandever, C#6841

Allotment No. 077031

of Bluewater, State of New Mexico, part y of the first part, herein-

after called the lessor, and Homer Scriven

of Box 41, San Mateo, State of New Mexico, part y of the second part,  
hereinafter called the lessee

WITNESSETH:

I, Lessor, in consideration of \$1, receipt of which is hereby acknowledged, of the rent and royalty to be paid, and of the agreement of the lessee herein contained, grants and leases unto lessee for the sole purpose of prospecting for and mining minerals, as follows: Uranium and associated minerals

the land described as follows: Lots 3 and 4, E/2 of SW/4,

Allotment No. 077031

section 18, township 13N, range 10W, New Mexico meridian, Navajo

Reservation, McKinley County, State of New Mexico, and containing

163.38 acres, more or less. The lessee may occupy as much of the surface of the land as is necessary to carry on the work of prospecting for and mining, preparation, and removal of said minerals, including milling and storing.



II. TERM.—Subject to the other provisions herein contained, this lease is for a term of 10 years from the date of its approval and as long thereafter as the minerals specified are produced in paying quantities.

III. DEFINITION.—Superintendent refers to the official in charge of the Indian Agency that has jurisdiction over the lands leased.

IN CONSIDERATION OF THE FOREGOING, THE LESSEE AGREES:

(1) ROYALTY.—To pay, or cause to be paid, to the General Superintendent, Navajo Agency

(this checks payable to 'Bureau of Indian Affairs')

for the use and benefit of the lessor, a royalty as follows:

See Attached "Exhibit A"

All royalty accruing for any month shall be due and payable before the twenty-fifth day of the following month. During the period that the land is under Federal jurisdiction, the royalty provisions of this lease shall be subject to reasonable adjustment by the Secretary of the Interior or his authorized representative at the end of the first and each successive 10-year period, such adjustment being based upon market conditions as supported by evidence from the field.

(a) MINIMUM ROYALTY.—To pay, or cause to be paid, to the Superintendent for the use and benefit of the Indian land-owners, at the expiration of each lease year, commencing with the 3rd lease year, a minimum royalty of \$ 4.00 per acre, or, if there is production, the difference between the actual royalty paid during the year and the prescribed minimum royalty, if the actual royalty paid is less than the minimum royalty.

(2) ANNUAL RENTAL.—To pay, or cause to be paid, to the General Superintendent for the use and benefit of the lessor, in advance, beginning with the date of approval of the lease, as annual rental, the sum of One Dollar (\$1) per acre for the first lease year, and One Dollar (\$1) per acre per year, in advance of each anniversary date of the lease, for each and every year thereafter during the continuance of the lease. The rent is not to be credited on the royalties accruing to the lessor under this lease. If the lease is surrendered or canceled, no rent accruing to the lessor will be refunded.

(3) DILIGENCE, PREVENTION OF WASTE.—To exercise diligence in the conduct of prospecting and mining operations, to carry on development and operations in a workmanlike manner and to the fullest possible extent; to neither commit nor suffer waste to be committed upon the land leased; to comply with the applicable laws of the State in which the land is located; to take appropriate steps to preserve the property and provide for the health and safety of workmen; to surrender and return promptly the premises upon the termination of this lease to whoever is lawfully entitled thereto, in as good condition as received, except for the ordinary wear and tear and unavoidable accidents in their proper use of the premises; not to remove any building or permanent improvement erected on the leased property during the lease. If the payments agreed upon by this lease have been made and the other lease terms and applicable regulations have been complied with, the office fixtures and records, personal property, tools, pumping, and drilling outfits, boilers, engines, and mining machinery may be removed by the lessee at any time before 60 days after the lease expires by forfeiture or otherwise.

(4) FOREST PROTECTION.—The lessee agrees:

(a) Not to cut, destroy or damage timber without prior authority of the Commissioner of Indian Affairs or his authorized representative, such authorization to be made only where required by the pursuance of necessary mining operations.

(b) To pay for all such timber cut, destroyed or damaged at rates prescribed by the Commissioner of Indian Affairs or his authorized representative, such rates to be determined on the basis of sales of similar timber in the vicinity.

(c) Not to interfere with the sale or removal of timber from the land covered by this lease by contractors operating under an approved timber sales contract now in effect or which may be entered into during the period of this lease.

(d) To do all in its power to prevent and suppress forest, brush or grass fires on the leased land and in its vicinity, and to require its employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. To place its employees, its contractors, subcontractors, and the employees of such contractors or subcontractors employed on the leased land at the disposal of any authorized officer of the Indian Service for the purpose of suppressing forest, brush or grass fires with the understanding that the payment for such services shall be made at rates to be determined by the Commissioner of Indian Affairs or his authorized representative, which rates shall not be less than the rates of pay prevailing in the vicinity for services of similar character: *Provided*, That no payment shall be made for services rendered in the suppression of fires for which the lessee, its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible.

(e) To pay for the loss of all timber ten inches or more in diameter occasioned by fires for which it, or any of its employees, its contractors, subcontractors, or the employees of such contractors or subcontractors are responsible for the start or spread, the assessment of the value of such damages to be determined by the Commissioner of Indian Affairs or his authorized representative on the basis of the value of such timber on sales of similar timber in the vicinity. Also, to pay liquidated damages of ~~Five~~ ten dollars (\$~~5.00~~ 10.00) per acre for all young timber less than ten (10) inches in diameter destroyed by such fires unless a lesser rate of damages shall be approved by the Commissioner of Indian Affairs, and to pay all costs for the suppression of fires for which it, or any of its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible.

(f) Not to burn rubbish, trash, or other inflammable materials except with the consent of the authorized representative of the Commissioner of Indian Affairs, and not to use explosives in such manner as to scatter inflammable materials on the surface of the land during the fire season, except as authorized to do so by such representative.

(5) DEVELOPMENT.—The land described herein shall not be held by the lessee for speculative purposes, but for mining the minerals specified. The lessee shall begin operations within ~~54~~ 60 months from the effective date of this lease. The lessee shall spend annually in actual mining operations, development, and improvements upon the leased land, or for the benefit of the leased land, including the annual rental, not less than ~~Eleven and no/100~~ 11.00 Dollars (\$~~11.00~~ 11.00) per acre. The lessee shall file with the Superintendent an itemized statement, in duplicate, within 20 days after each lease year, of the amount and character of the expenditures during the lease year. The statement must be certified under oath by the lessee or its agent. If the lessee fails to diligently develop or operate the mine, except when operation is interrupted by a strike, an act of God, or casualty not attributable to the lessee, this lease will be subject to cancellation. Whenever the Secretary of the Interior or his authorized representative considers the marketing facilities inadequate or the economic conditions unsatisfactory, he may authorize the suspension of operations for such time as he considers advisable, but this does not release the lessee from paying the advance annual rental. Payment of minimum royalty will not excuse complying with the provisions of this section.

(6) MONTHLY STATEMENTS.—To keep an accurate record of the mining operations, showing the sales, prices, dates, purchasers, and the amount of minerals mined, the amount of minerals removed, and the gross receipts, and to furnish the Superintendent sworn monthly reports before the twenty-fifth of the succeeding month. All royalty and advance rental due shall be a lien on all implements, tools, movable machinery, and all other chattels used in the operation and upon all of the unsold minerals obtained under the lease. An audit of the accounts and books of the lessee shall be made annually or at any other time directed by the Superintendent by a certified public accountant approved by the Secretary of the Interior and at the expense of the lessee. The lessee shall furnish, through the Superintendent, a free copy of the audit to the Secretary of the Interior within 30 days after the completion of each audit.

(7) REGULATIONS.—To abide by and conform to any and all regulations of the Secretary of the Interior now or hereafter in force relative to such leases including 25 CFR ~~172~~ 172, and 30 CFR 231. Rate of royalty, the annual rental, or the term of the lease may not be changed by a future regulation without the written consent of the parties to this lease.

(8) ASSIGNMENT OF LEASE.—Not to assign this lease or any interest therein by an operating agreement including agreements providing for payment of overriding royalty or otherwise, nor to sublet any portion of the leased premises before restrictions are removed, except with the approval of the Secretary of the Interior. If this lease is divided by the assignment of an entire interest in any part of it, each part shall be considered a separate lease under all the terms and conditions of the original lease.

(9) BOND.—To furnish to the Superintendent an acceptable surety bond in the amount of ~~Two Thousand~~ and no/100 Dollars (\$~~2,000.00~~ 2,000.00). The right is reserved to the Secretary of the Interior or his authorized representative to increase the amount of bond above the sum named.

(10) LIQUOR.—The lessee further agrees that it will not use or permit to be used any part of said premises for any unlawful conduct or purpose whatsoever; that it will not use or permit to be used any part of said premises for the manufacture, sale, gift, transportation, drinking, or storage of intoxicating liquors or beverages in violation of existing laws relating thereto, and that any violation of this clause by the lessee or with its knowledge, shall render this lease voidable at the option of the Superintendent.

(11) INSPECTION.—The leased premises, producing operations, appurtenances, and all books and accounts of the lessee may be inspected by the lessor and its agents or any authorized representative of the Secretary of the Interior.

(12) DISPOSITION OF MINERALS AND SURFACE.—The lessor expressly reserves the right to lease, sell, or otherwise dispose of the oil and gas and the surface of the lands in this lease under existing law or laws hereafter enacted, such disposition to be subject to the right of the lessee to use as much of the surface as is necessary in the extraction and removal of the minerals from the leased land.

(13) SURRENDER AND TERMINATION.—The lessee may at any time terminate this lease or any part thereof upon the payment of all rentals, royalties, and other obligations due to the lessor, and the further sum of \$5, and in the event restrictions have not been removed, upon a showing satisfactory to the Secretary of the Interior or his authorized representative

that full provision has been made for the conservation and protection of the property, the lease to continue in full force and effect as to the lands not so surrendered. If this lease has been recorded, lessee shall file a recorded release with its application to the Superintendent for termination of this lease.

(14) RELINQUISHMENT OF SUPERVISION BY THE SECRETARY OF THE INTERIOR.—Should the Secretary of the Interior, at any time during the life of this instrument, relinquish supervision as to all or part of the acreage covered hereby, the relinquishment does not bind the lessee until the Secretary has given 30 days' written notice. Until the requirements are fulfilled, lessee shall continue to make all payments due under subsections 1 and 2. After notice of relinquishment has been received by lessee, this lease is subject to the following further conditions:

(a) All rentals and royalties accruing shall be paid directly to lessor or its successors in title.

(b) If at the time supervision is relinquished by the Secretary of the Interior as to all lands under this lease, and lessee has made all payments due under the lease and has fully performed all obligations on its part to be performed up to the time of such relinquishment, then the bond given to secure the performance of the lease and on file in the Indian Office shall be of no further force or effect.

(15) WATER WELLS.—The lessee may, at its own expense, drill and equip water wells on the leased premises and agrees that all wells will be left intact and properly cased at the termination of the lease by expiration of its term or otherwise. Lessee shall have the right to remove all mechanical pumping equipment installed by it at any wells.

(16). DAMAGES.—The lessee shall conduct all operations authorized in this lease with due regard to preventing unnecessary damages to vegetation, timber, soil, roads, bridges, cattle-guards, fences, and other improvements, including construction, operation, or maintenance of any of the facilities on or connected with this lease which causes damage to the watershed or pollution of the water resources. On termination of operations under this lease, the lessee shall make provisions for the conservation, repair, and protection of the property and leave all of the areas on which the lessee has worked in a condition that will not be hazardous to life or limb, and will be to the satisfaction of the Superintendent.

(17) LIABILITY FOR DAMAGE.—The lessee is liable for any and all damages resulting from its operations under this lease; including injury to the lessor, the tenants, licenses and surface owners, and for any and all damage to, or destruction of, all property, caused by the lessee's operations hereunder. The lessee agrees to save and hold the lessor and the United States, its employees, licensees, and the surface owner or their tenants harmless from all suits for injury or claims for damages to persons and property resulting from the lessee's operations under this lease.

(18) ROADS.—The lessee may use existing roads, if any, on the land and may construct, and maintain, at its own expense, any additional roads across lessor's lands that are necessary in carrying on the actual mining, prospecting, and exploration work after the location of these roads has been approved in writing by the Superintendent of the Navajo Agency. The public obtains no rights to these roads, and upon termination of this lease or if at any time it becomes unnecessary for lessee to use the road for conducting the operations authorized under this lease, the right to use the road shall thereupon cease and all the rights shall revert in lessor in accordance with law. The lessee shall hold the lessor and the United States harmless and indemnify them against any loss or damage that might result from the negligent construction or maintenance by lessee of the road. Installations made in connection with roads by the lessee may be removed by the lessee.

(19) INDIAN LABOR.—The lessee shall employ Indians, giving priority to lessor and other members of its tribe in all positions for which they are qualified and available and shall pay the prevailing wage rates for similar services in the area. The lessee shall do everything practicable to employ qualified Indians, giving priority to the lessor and other members of its tribe and their equipment in the hauling of all materials under this lease, insofar as the lessee does not use its own equipment for that purpose. Lessee agrees to make special efforts to work Indians, giving priority to the lessor and other members of its tribe into skilled, technical, and other higher jobs in connection with the lessee's operations under this lease.

(20) INSURANCE, SOCIAL SECURITY, TAXES, ETC.—The lessee agrees to carry such insurance covering all persons working in, on, or in connection with the leased premises for the lessee as will fully comply with the provisions of the statutes of the State of New Mexico covering workmen's compensation and occupational disease, as are now in force or as may be amended. Further, the lessee agrees to comply with all the terms and provisions of all applicable laws of the State of New Mexico, and of the United States of America as now exist or as may be amended, pertaining to Social Security, unemployment, compensation, wages, hours, and conditions of labor; and to indemnify and hold the lessor and the United States harmless from payment of any damages occasioned by the lessee's failure to comply with these laws. The lessee shall pay all taxes lawfully levied or assessed on the sale, severance, production, extraction, or removal of any of the minerals covered by this lease.

(21) HEIRS AND SUCCESSORS IN INTEREST.—It is further covenanted and agreed that each obligation under this lease shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors of, or assigns of the parties to this lease.

(22) GOVERNMENT EMPLOYEES CANNOT ACQUIRE LEASE.—No lease, assignment thereof, or interest therein will be approved to any employee or employees of the United States Government whether connected with the Indian Service or otherwise, and no employee of the Interior Department shall be permitted to acquire any interest in such leases by ownership of stock in corporations having leases or in any other manner.

(23) CANCELLATION AND FORFEITURE.—When, in the opinion of the Secretary of the Interior or his authorized representative, there has been a violation of any of the terms or conditions of this lease before restrictions are removed, the Secretary of the Interior or his authorized representative has the right at any time after 30 days' notice to the lessee, specifying the terms and conditions violated, and after a hearing, if the lessee shall so request within 30 days of receipt of notice, to declare this lease void, and the lessor may then take immediate possession of the lands. After restrictions are removed, the lessor may use any available remedy in law or equity for breach of this contract by the lessee.

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above mentioned.

TWO WITNESSES TO EXECUTION BY LESSOR:

..... *His Mark* → Brown Vandever, G5341 [SEAL]

P. O. .... [SEAL]

P. O. ....

TWO WITNESSES TO EXECUTION BY LESSEE:

..... *Homer Scriven* Homer Scriven [SEAL]

P. O. ....

..... APPROVED.....

P. O. .... Attest: .....

AREA DIRECTOR

State of ..... } ss:  
County of .....

### ACKNOWLEDGMENT OF LESSOR

Before me, a notary public, on this 22<sup>nd</sup> day of September, 1962, personally appeared Homer Scriven & Brown Vandever to me known to be the identical person who executed the within and foregoing lease, and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

..... *F. H. Kimball*  
Notary Public.

My commission expires .....

XHIBIT "A"

**PERCENTAGE ROYALTY SCHEDULE**  
For Uranium and other Minerals associated therewith.

| MINE VALUE PER DRY TON | ROYALTY PERCENTAGE OF<br>MINE VALUE PER DRY TON |
|------------------------|---|
| \$ 0.01 to \$ 10.00    | 12. %   |
| \$ 10.01 to \$ 20.00   | 13.3%   |
| \$ 20.01 to \$ 30.00   | 14.6%   |
| \$ 30.01 to \$ 40.00   | 15.9%   |
| \$ 40.01 to \$ 50.00   | 17.2%   |
| \$ 50.01 to \$ 60.00   | 18.5%   |
| \$ 60.01 to \$ 70.00   | 19.8%   |
| \$ 70.01 to \$ 80.00   | 21.1%   |
| \$ 80.01 to \$ 90.00   | 22.4%   |
| \$ 90.01 to \$100.00   | 23.7%   |
| \$100.01 or more       | 25.0%   |

"MINE VALUE PER DRY TON," wherever used herein is hereby defined as the dollar value per dry ton of crude ores at the mine as paid for by the Atomic Energy Commission or other government agency before allowance for transportation and development; however, if the government at any time hereafter does not establish and pay for said ores on a fixed or schedule dollar value per dry ton of crude ores at the mine, or said ores contain saleable minerals, some, or all of which are disposed of to a custom treatment plant or smelter for treatment and sale, then mine value per dry ton shall be the gross value per dry ton of said crude ore as paid for by the Atomic Energy Commission or other Government authorized agency mill or other buyer, less any allowances or reimbursements for the following specific items; (1) transportation of ores; (2) allowances for exploration for, or development of ores; and (3) treatment of beneficiation of ores; which specific items shall in such event be deducted from the gross sales price received from the metal content of said ores by the seller before said percentage royalty is calculated and paid. Such payments shall be made on or before the twenty-fifth (25) day of the month next following receipt by lessee of payment for said ores together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.

Wherever used in this document the word "ores" shall mean only the ore of uranium and other minerals associated therewith; and the words "ores mined and sold" or similar words shall be construed and understood to mean ores mined and removed from the demised premises for the purpose of milling, treatment, stockpiling or other disposition, and not that ores must be sold as such.

In addition to the above royalty payments there shall be paid to the General Superintendent for the use and benefit of the lessor 10% of any bonus paid by the United States Atomic Energy Commission for the production of ore from the above lease and particularly bonuses for the initial production of uranium ore from said lease. This provision shall not be limited to bonuses for initial production but shall apply to any and all bonuses paid for production of ore.

**ROYALTIES** for all metallic minerals other than uranium and minerals associated therewith:

The lessee shall pay to the General Superintendent for the use and benefit of the Indian landowners a royalty of (10%) percent of the gross value of the ore as shown by the smelter returns. All royalties accruing for any month shall be due and payable before the 25th day of the month succeeding, together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.



Sale No. 7 ✓

Tract No. 170

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS

Contract No. N00-C-14-20-5681

MINING LEASE INDIAN LANDS  
(For Minerals other than Oil and Gas)

Mining Lease, Navajo Indian Allotted Lands

THIS INDENTURE OF LEASE, Made and entered into in quadruplicate on this  
8th day October, 19 75, Between Walter Vandever, or heirs, as  
the case may be. Allotment # SE 077411 ✓  
of McKinley County ✓ State of New Mexico ✓, party of the first part,  
hereinafter called the Lessor, and G. Warnock ✓  
of Albuquerque State of New Mexico, party of the second part,  
hereinafter called the Lessee.

WITNESSETH:

I. Lessor, in consideration of \$570.00 ✓ bonus receipt of which is hereby  
acknowledged, of the rent and royalty to be paid, and of the agreement of the  
lessee, herein contained, grants and leases unto lessee for the purpose of pros-  
pecting for and mining uranium and associated minerals except coal, oil, gas,  
sand, gravel, and building stone upon the land described as follows:

N 1/2, N 1/2 ✓

Section 13 ✓, Township 13 North ✓, Range 11 West ✓,

New Mexico Principal, Meridian, Navajo

Indian Allotted land, McKinley ✓ County, State New Mexico,

and containing 160 ✓ acres, more or less. The lessee may  
occupy as much of the surface of the leased land as is necessary to carry on the  
work of exploring for, developing, mining, producing, processing, marketing, and  
removing said minerals, including milling and storing subject to payments to be  
made as hereinafter set forth. Subject to the limitations hereinafter provided,  
lessee shall have the right and license in connection with the operation of  
mining on the lands to construct thereon buildings, pipelines, plants, tanks and  
other structures used or useful in the production, processing and transportation

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Attachment D

of said minerals; make excavations, openings, stockpiles, dumps, ditches, trains, roads, railroads, spur tracts, transmission lines, and other improvements used or useful in said production processing and transportation; produce electrical power for its own use, erect and operate power lines, place machinery and other equipment and fixtures upon the lands; use and transport water developed by lessee on the lands and any other water made available to Lessee; prepare for market, remove, process, and sell minerals; do all other things upon said leased premises that may be necessary to carry on the mining operations hereunder, including the right of ingress and egress; however, the rights contained herein do not include the right to dump waste minerals or tailings from properties not included in this lease.

(a) Survey of Leased Premises.

Within 180 days of the approval of this lease, Lessee at its own expense shall have the leased premises surveyed by a registered surveyor, the boundaries posted with substantial monuments and a tie established with the nearest United States Public Survey marker. A plat map of the leased premises shall be furnished to the Area Director in quadruplicate and two additional copies furnished to the Regional Mining Supervisor.

II. TERM. Subject to the other provisions herein contained, this lease is for a term of 10 years from the date of its approval and as long thereafter as the minerals specified are produced in paying quantities.

III. DEFINITION. Area Director refers to the official in charge of the Navajo Area Office, Window Rock, Arizona. The Secretary refers to the Secretary of the Interior or his authorized representative, Supervisor refers to the Regional Mining Supervisor, U. S. Geological Survey, Carlsbad, New Mexico.

IN CONSIDERATION OF THE FOREGOING, THE LESSEE AGREES:

IV. ROYALTY. To pay or cause to be paid to the Area Director for the use and benefit of the Lessor royalties as specified in Exhibit "A" attached hereto and by reference made a part hereof. Such royalties are payable not later than the 25th day of the succeeding month for which royalties are due.

V. MINIMUM ROYALTY. A minimum advance royalty of \$4.00 per acre shall become due and payable at the beginning of the fourth lease year. If there is production during the fourth or any lease year following, the minimum royalty shall be credited against actual royalty during such year, but no other year. If the lease is surrendered or cancelled, no advance royalty paid to Lessor will be refunded.

VI. ANNUAL RENTAL. To pay or cause to be paid to the Area Director for the use and benefit of the Lessor, in advance, beginning



with the date of approval of the lease, as annual rental, the sum of \$1.00 per acre for the first lease year and thereafter \$1.00 per acre on each anniversary date of the approved lease. The rent shall not be credited against royalties accruing to the Lessor under this lease. If the lease is surrendered or cancelled, no rent accruing to the Lessor will be refunded.

VII. ADJUSTMENT OF ROYALTY. Royalty rates shall be subject to reasonable adjustment by the Secretary of the Interior or his authorized representative, with the consent of the Lessor, at the end of the first 5-year period, at the end of the primary term, and at each successive 10-year period thereafter, based on market conditions as supported by evidence from the field.

The Lessee agrees that the Secretary of the Interior, for the purpose of determining the royalties due hereunder, may establish reasonable minimum values for the minerals mined, due consideration being given to the highest price paid to producers for minerals of like quality produced from the same general area, the price received by the Lessee, posted prices and other relevant matters.

VIII. EXCAVATION, WASTE AND CONSTRUCTION AREA. It is further agreed that in addition to all payments of bonuses, royalties and rentals heretofore set forth, the Lessee shall pay to the Area Director for the use and benefit of the Lessor, ONE HUNDRED DOLLARS (\$100) per acre for each acre and a proportionate amount for each part of an acre within the leased premises used for permanent construction, open-pit mining or dumping of waste material, including over burden and tailings, derived from ores extracted from the lands included in this lease. This amount shall become due and payable at the end of the lease year in which the use of the acreage commences and shall be payable one time only. Before any such use commences, Lessee shall furnish to Lessor and Secretary or his authorized representative, reasonable evidence either that no commercial ores are beneath the surface of the land or that because of the depth of any commercial ore body, such surface use of the land will not interfere with mining such ore body.

(a) Campsites. The Lessee agrees to pay to the Area Director for the use and benefit of the Lessor, ONE HUNDRED DOLLARS (\$100) per acre for all land used for campsite purposes within the leased premises, it being understood that the payment of \$100 per acre is in addition to all other payments made under this lease and is a sum which shall be charged only once for campsite acreage. The campsite selected shall be the minimum acreage necessary for operation of the mill and shall not include a complete housing and community development for Lessee's employees.

IX. OWNERSHIP OF WASTE MATERIAL. Lessee may remove to other lands overburden and waste materials extracted from the leased premises or waste materials which are residual waste products of processed ores from

the leased premises; provided, if minerals are removed from such materials by Lessee, Lessee shall pay Lessor royalty as provided under the provisions of this lease. Upon cancellation, termination or expiration of this lease, Lessee will have no obligation to remove alluvium and waste materials from the leased premises and they will become the property of the Lessor.

**X.**

**PROTECTION OF ENVIRONMENT AND RESTORATION OF SURFACE.** The

Lessee agrees to preserve and protect the natural environment conditions of the land encompassed by his lease, or land affected by his exploration or mining operations, and to take such corrective actions as may be necessary within the scope of normal soil conservation and anti-stream and anti-air pollution practices as follows:

(1) Conduct operations so as not to pollute any surface or subsurface fresh water supply.

(2) Control water supplies in conformity with existing laws and Tribal ordinances and in all cases hold erosion and flood damage to a minimum.

(3) Terrace and landscape waste disposal areas in a reasonable manner at his own cost and expense. The landscaping shall include, but is not limited to, the planting of grasses, shrubs, and other vegetation which will partially screen the area from view and control water and wind erosion. The surface of any waste dumps shall be left reasonably flat, and tailings will be covered with soil to a depth that will permit the early establishment and propagation of vegetation upon the completion of use of the leased premises or said waste or tailings, dumps or deposits.

(4) Conduct operations that will minimize air pollution which may result from stripping, mining, milling, hauling, leaching, or waste disposal, in conformity with existing or future laws or Tribal laws or Tribal ordinances enacted applicable to air pollution control.

(5) As soon as practicable after the issuance of the lease, and before the commencement of any surface-disturbing activities, the Lessee shall submit a plan of implementation which shall indicate how the previously agreed to stipulations of environmental preservations and surface reclamation will be carried out. The plans of implementation shall be in conformance with 25 CFR 177.6 and 177.7 and shall be submitted to the Regional Mining Supervisor, U. S. Geological Survey, and Superintendent for approval.

**XI.**

**GOVERNMENT RESERVES RIGHT TO BUY MINERALS PRODUCED.** In time

of war or other public emergency, any of the executive departments of the United States Government shall have the option to purchase at the posted market price on the day of sale, all or any part of the substance or substances produced under this lease.

**XII.**

**DILIGENCE, PREVENTION OF WASTE.** Lessee agrees to exercise

diligence in the conduct of prospecting and mining operations, to carry

on development and operations in a workman-like manner and to the fullest possible extent; to neither commit nor suffer to be committed waste upon the land leased; to comply with the applicable laws of the state in which the land is located; to take appropriate steps to preserve the property and provide for the health and safety of workmen; to surrender and return promptly the premises upon the termination of this lease to whomever is lawfully entitled thereto in as good condition as received, except for the ordinary wear and tear and unavoidable accidents in their proper use of the premises; not to remove any buildings or permanent improvements erected on the leased property during the term of lease. If the payments agreed upon by this lease have been made and the other lease terms and applicable regulations have been complied with, the office fixtures and records, personal property, tools, pumping, and drilling outfits, boilers, engines, and mining machinery may be removed by the Lessee at any time before 120 days after the lease expires by forfeiture or otherwise. The Area Director may grant reasonable extension of time for removal of such equipment.

**XIII. FOREST PROTECTION. The Lessee agrees:**

(1) To submit in advance to the Area Director for approval, a site development and layout plan, construction plan and any revisions thereto.

(2) Not to cut, destroy or damage timber without prior authority of the Commissioner of Indian Affairs or his authorized representative, such authorization to be made only where required by the pursuance of necessary mining operations.

(3) To pay for all such timber cut, destroyed or damaged at rates prescribed by the Commissioner of Indian Affairs or his authorized representative, such rates to be determined on the basis of sales of similar timber in the vicinity.

(4) Not to interfere with the sale or removal of timber from the land covered by this lease by contractors operating under an approved timber sales contract now in effect or which may be entered into during the period of this lease.

(5) To do all in its power to prevent and suppress forest, brush or grass fires on the leased land and in its vicinity, and to require its employees, contractors, subcontractors and employees of contractors or subcontractors to do likewise. To place its employees, its contractors, subcontractors and the employees of such contractors or subcontractors employed on the leased land at the disposal of any authorized officer of the Indian Service for the purpose of suppressing forest, brush or grass fires with the understanding that the payment of such services shall be made by the United States at rates to be determined by the Commissioner of Indian Affairs or his authorized representative, which rates shall not be less than the rates of pay prevailing in the vicinity for services of

similar character; provided that no payment shall be made for services rendered in the suppression of fires for which the Lessee, its employees, contractors, or subcontractors of the employees of such contractors or subcontractors are responsible.

(6) To pay for the loss of all timber ten (10) inches or more in diameter occasioned by fires for which it or any of its employees, its contractors, subcontractors or the employees of such contractors or subcontractors are responsible for the start or spread, the assessment of the value of such damages to be determined by the Commissioner of Indian Affairs or his authorized representative on the basis of the value of such timber on sales of similar timber in the vicinity. Also, to pay liquidated damages for all young timber less than ten (10) inches in diameter destroyed by such fires and to pay all costs for the suppression of fires for which it or any of its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible.

(7) Not to burn rubbish, trash or other inflammable materials, except with the consent of the authorized representative of the Commissioner of Indian Affairs, and not to use explosives in such manner as to scatter inflammable materials on the surface of the land during the fire season, except as authorized to do so by such representative.

XIV. DEVELOPMENT. The land described herein shall not be held by the Lessee for speculative purposes, but for mining the minerals specified. The Lessee shall begin operations within 12 months from the effective date of this lease. The Lessee shall spend annually in actual mining operations, development, and improvements upon the leased land, or for the benefit of the leased land, including the annual rental, not less than \$11.00 per acre. The Lessee shall file with the Area Director an itemized statement, in duplicate, within 20 days after each lease year, of the amount and character of the expenditures during the lease year. The statement must be certified under oath by the Lessee or its agent. If the Lessee fails to diligently develop or operate the mine, except when operation is interrupted by a strike, an act of God or casualty not attributable to the Lessee, this lease will be subject to cancellation.

XV. UNITIZATION. In the event two or more leases comprise a single logical mining unit in accordance with maps and plans showing the proposed mining methods and the plant layout which have been submitted by the Lessee and approved by the Regional Mining Supervisor, then the Lessee may unitize such leases on such terms and conditions as may be agreed upon by the Lessor and the Lessee with the consent of the Secretary of the Interior.

XVI. MONTHLY STATEMENTS. To keep an accurate record of the mining operations, showing the sales, prices, dates, purchasers, and the amount of minerals mined, the amount of minerals removed, and the gross receipts, and to furnish the Regional Mining Supervisor and the Area Director sworn monthly reports before the twenty-fifth of the succeeding month. All royalty and advance rental due shall be a lien on all implements, tools, movable machinery and all other chattels used in the operation and upon all of the unsold minerals obtained under the lease. An audit of the accounts and books of the Lessee shall be made annually or at any other time directed by the Area

Director by a certified public accountant approved by the Secretary of the Interior and at the expense of the Lessee. The Lessee shall furnish, through the Area Director, a free copy of the audit to the Lessor and the Secretary of the Interior within 30 days after the completion of each audit.

XVII. REGULATIONS. To abide by and conform to the terms of this lease and all regulations of the Secretary of the Interior now or hereafter in force and relative to such leases including 25 CFR 171 and 177, and 30 CFR 231, except as qualified herein. Rate of royalty, the annual rental or the term of the lease may not be changed by a future regulation without the written consent of the parties of this lease.

XVIII. ASSIGNMENT OF LEASE. Not to assign this lease or any interest therein by an operating agreement including agreements providing for payment of overriding royalty or otherwise, not to sublet any portion of the leased premises before restrictions are removed, except with the approval of the Secretary of the Interior. If this lease is divided by the assignment of an entire interest in any part of it, each part shall be considered a separate lease under all the terms and conditions of the original lease.

XIX. BOND. To furnish to the Area Director an acceptable surety bond as provided in 25 CFR 172.10. The right is reserved to the Secretary of the Interior or his authorized representative to require another bond under the provisions of 25 CFR 177.8.

XX. LIQUOR. The Lessee further agrees that it will not use or permit to be used any part of said premises for any unlawful conduct or purpose whatsoever; that it will not use or permit to be used any part of said premises for the manufacture, sale, gift, transportation, drinking, or storage or intoxicating liquors or beverages in violation of existing laws relating thereto, and that any violation of this clause by the Lessee or with its knowledge, shall render this lease voidable at the option of the Area Director.

XXI. INSPECTION. The leased premises producing operations, appurtenances, and all books and accounts of the Lessee may be inspected by the Lessor, and its agents or any authorized representative of the Secretary of the Interior.

XXII. DISPOSITION OF MINERALS AND SURFACE.

(a) The Lessor expressly reserves the right to lease, sell or otherwise dispose of the minerals not subject to this lease and the surface of the lands in this lease under existing law or laws hereafter enacted, such disposition to be subject to the right of the Lessee to use as much of the surface as is necessary in the extraction and removal of the minerals from the leased land.

There is further reserved to Lessor, after consultation with Lessee, the right to construct, use and maintain canals, pipe lines and syphons on and across said lands; provided such use and facilities will not unreasonably interfere with Lessee's mining operations and rights under this lease.

(b) Lessor may hereafter grant to other persons, firms or corporations oil and gas leases, non-mineral leases, licenses, oil and gas prospecting permits, or rights of any upon the leased premises; and oil and gas drilling and producing activities may be carried out concurrently with Lessee's mining operations; provided, however, that no oil rights or installations of any kind shall be situated so as to unduly interfere with Lessee's right to carry on its mining operations and related activities; and provided further, that no well may be drilled for oil or gas at any location which, in the opinion of the mining and oil and gas supervisor of the United States Geological Survey, would result in undue waste of mineral deposits or constitute a hazard to interfere with mining operations being conducted by Lessee on the leased premises. The provisions of this Section 22 shall be included in any oil and gas lease, license, prospecting permit or right-of-way granted by Lessor on the leased premises.

(c) Notwithstanding any other provision of this lease, the Lessor reserves the right without liability of any kind, except as provided in this lease, to grant to qualified applicants rights-of-way for pipelines for the transportation of oil, gas, helium or petroleum products, for power lines, telephone, telegraph and water lines incident to the operations of such pipelines, across the lands embraced in this lease, upon the condition that prior to the granting of any such right-of-way the applicant therefore, as a condition precedent to such grant, shall file with the Area Director or other official in charge of the Indian agency having jurisdiction over the lands the following expressed undertaking in writing for the express benefit of Lessee.

1. That applicant will either bury the pipeline to a sufficient depth or at a place to be designated by Lessee, construct and maintain, at applicant's expense, a ramp, so that loaded vehicles, including Lessee's heavy mining equipment, may pass unhindered over said pipeline. Whenever said pipeline is relocated pursuant to subparagraph (2) of this subsection (c) of this section one, applicant will either bury the relocated pipe or promptly construct and maintain, at its own expense, a suitable ramp in a new place designated by Lessee. Lessee shall not be responsible for damage to said pipeline caused by such vehicles and equipment to crossing said pipeline.

2. That applicant will make adequate provisions in the construction of said pipeline, power transmission lines, telephone, telegraph or water lines so that, in the event it is determined by Lessee that mining operations should be conducted within the area of the right-of-way or that a power or industrial plant or other building should be built in such area,



the line can be expeditiously relocated so as not to interfere with Lessee's operations; and applicant shall make such relocation, including any necessary bridging, at its own expense, within six (6) months from receipt of notice in writing from Lessee requesting such relocations. If applicant fails to make such relocation within such one-year period, Lessee may relocate the line without liability and at the expense of applicant.

3. Applicant will, at all times, keep, maintain and repair at its own expense, the portion of the pipeline crossing the leased premises in good working order and repair and in such condition as not to injure, endanger or interfere with Lessee or any person or property on or about the leased premises.

4. That applicant will promptly pay any lawful taxes, charges or assessments placed upon or levied against the pipeline or improvements or appurtenances in connection therewith; provided that applicant may contest the validity or amount of any such tax, charge or assessment and shall not be considered in violation of this stipulation until a reasonable time after final determination or such contest by a competent tribunal.

5. That applicant will be responsible for any damage to or loss of property or injury to or death of any person directly or indirectly caused by the enjoyment of pipeline rights, and shall hold Lessee harmless and indemnify it against any and all claims therefor; and shall further hold Lessee harmless from and indemnify it against damage to or loss of property belonging to applicant or injury to or death of any person on or about the pipeline crossing on behalf of or at the invitation of applicant.

6. That applicant shall specify in writing the address to which all notices and requests to be given or made by Lessee may be mailed.

(d) LESSOR AGREES THAT:

1. No pipeline right-of-way granted across the leased premises shall exceed fifty (50) feet in width. Rights-of-way for power lines and other purposes granted across the leased premises shall be of such widths as will accommodate themselves to Lessee's permitted use of the leased premises.

2. Lessee shall be given timely written notice of any application for rights-of-way over the leased premises before the same are granted.

3. An executed duplicate of the undertaking specified in subsection above and a true copy of the grant of rights described therein shall be furnished Lessee upon the granting of any application for rights over the leased premises.

XXIII. SURRENDER AND TERMINATION. A Lessee may surrender a lease or any legal subdivision thereof by filing with the Secretary on or before



the anniversary date of the lease a written relinquishment. If the lease has been recorded, the Lessee must file a recorded release on or before the anniversary date of the lease. The approved release relinquishment shall become effective on the date it is filed with the Secretary, subject to continued obligation of the Lessee and his surety to pay all accrued rentals, royalties, and other payments due and to recondition the premises in accordance with the terms of the lease and the regulations. The Lessee shall, within 30 days after the termination of this lease, furnish the Area Director detailed and complete written reports of the exploration done and all information concerning the nature and value of the minerals. (25 CFR 171.27)

**XXIV. RELINQUISHMENT OF SUPERVISION BY THE SECRETARY OF THE INTERIOR.**

Should the Secretary of the Interior, at any time during the life of this instrument, relinquish supervision as to all or part of the acreage covered hereby, the relinquishment does not bind the Lessee until the Secretary has given 30 days' written notice. Until the requirements are fulfilled, Lessee shall continue to make all payments due under Articles IV, V, and VI. After notice of relinquishment has been received by Lessee, this lease is subject to the following further conditions:

1. All rentals and royalties accruing shall be paid directly to Lessor or its successor in title.
2. If at the time supervision is relinquished by the Secretary of the Interior as to all lands under this lease, and Lessee has made all payments due under the lease and has fully performed all obligations on its part to be performed up to the time of such relinquishment, then the bond given to secure the performance of the lease and on file in the Indian Office shall be of no further force or effect.

**XXV. WATER WELLS.** Upon approval of the Lessor and the Area Director, the Lessee may, at its own expense, drill and equip water wells on the leased land. The Lessee agrees that at the termination of this lease, by expiration of its terms or otherwise, all wells shall be left intact and properly cased. Lessee may remove all mechanical pumping equipment installed by Lessee at any wells within 60 days after expiration of the lease, otherwise such equipment shall become the property of the Lessor.

**XXVI. DAMAGES.** The Lessee shall conduct all operations authorized by this lease, including construction, operation or maintenance of any of the facilities on or connected with this lease, so as to prevent unnecessary damage to vegetation, timber, soil, roads, bridges, cattle guards, fences and other improvements and so as to prevent damage to watershed or pollution of the water resources. On termination of operations under this lease, the Lessee shall make appropriate provisions for the conservation, repair and protection of the property and leave all the areas on which the Lessee has worked in a safe condition, not hazardous to life and limb, all to the satisfaction of the Lessor and the Area Director.

XVII. LIABILITY FOR DAMAGE. The Lessee is liable for any and all damages resulting from its operations under this lease; including injury to the Lessor, the tenants, licensees and surface owners, and for any and all damages to or destruction of all property, caused by the Lessee's operations hereunder. The Lessee agrees to save and hold the Lessor and the United States, its employees, licensees, and the surface owner of their tenants harmless from all suits for injury or claims for damages to persons and property resulting from the Lessee's operations under this lease.

XXVIII. ROADS. The Lessee may use existing roads, if any, on the leased land, on applications, duly approved in writing by the Lessor and the Area Director, the Lessee shall be entitled to construct and maintain, at its own expense, any additional roads on the leased land necessary for exploration and mining. No part of any such road shall inure to the benefit of the public, and the public shall obtain no rights thereon. If at any time the Lessee does not require the use of any such road for the operations authorized under this lease or upon termination of this lease for any cause whatsoever, the right to use any such road shall cease, and all the rights shall revert in Lessor in accordance with law. The Lessee shall hold the Lessor and the United States harmless and indemnify them against any loss for damage that might result from the negligent construction or maintenance by Lessee of the road.

XXIX. INDIAN LABOR. The Lessee shall give a priority right of employment to members of the Navajo Tribe for all positions for which they are qualified and available and shall pay the prevailing wage rates for similar services in the area. Upon initial hiring and whenever thereafter a job opening occurs, the Lessee, its contractors, or subcontractors, shall give notice of such opening to the Lessor stating the time and place where job applications will be accepted. Except in the cases of emergency, no non-member of the Tribe shall be hired for any job until 48 hours (not counting Saturdays and Sundays) following the delivery of such notices to the Navajo Tribe.

XXX. INSURANCE, SOCIAL SECURITY, TAXES, ETC. The Lessee agrees to carry such insurance covering all persons working in, on or in connection with the leased premises for the Lessee as willfully comply with the provisions of the statutes of the State of New Mexico covering workmen's compensation and occupational disease, as are now in force or as may be amended. Further, the Lessee agrees to comply with all the terms and provisions of all applicable laws of the State of New Mexico and to the United States of America as now exist or as may be amended, pertaining to Social Security, unemployment compensation, wages, hours and conditions or labors; and to indemnify and hold the Lessor and the United States harmless from payment of any damages occasioned by the Lessee's failure to comply with these laws. The Lessee shall pay all taxes lawfully levied or assessed on the sale, severance, production, extraction or removal of any of the minerals covered by this lease.

XXXI. HEIRS AND SUCCESSORS IN INTEREST. It is further covenanted and agreed that each obligation under this lease shall extend to and be binding upon, and every benefit hereof shall inure to the heirs, executors, administrators, successors of or assigns of the parties to this lease.

XXXII. GOVERNMENT EMPLOYEES CANNOT ACQUIRE LEASE. No lease, assignment thereof or interest therein, will be approved to any employee or employees of the United States Government whether connected with the Indian Service or otherwise, and no employees of the Interior Department shall be permitted to acquire any interest in such leases by ownership of stock in corporations having leases or in any other manner.

XXXIII. PENALTIES. Failure of the Lessee to comply with any provisions of the lease, of the operating regulations, of the regulations set forth in 25 CFR 171 and 177, order of the Area Director or his representative, or of the order of the Supervisor or his representative, shall subject the lease to cancellation by the Secretary of the Interior or the Lessee to a penalty of not more than FIVE HUNDRED DOLLARS (\$500) a day for each and every day the terms of the lease, the regulations, or such orders are violated; or to both such penalty and cancellation; provided, that Lessee shall be entitled to notice and hearing within 30 days after such notice, with respect to the terms of the lease, regulations, or orders violated, which hearing shall be held by the Supervisor, whose findings shall be conclusive unless an appeal be taken to the Secretary of the Interior within 30 days after notice of the Supervisor's decision, and the decision of the Secretary of the Interior, upon appeal, shall be conclusive.

XXXIV. CANCELLATION AND FORFEITURE. When, in the opinion of the Secretary of the Interior or his authorized representative, there has been a violation of any of the terms or conditions of this lease before restrictions are removed, the Secretary of the Interior or his authorized representative has the right at any time after 30 days notice to the Lessee, specifying the terms and conditions violated, and after a hearing, if the Lessee shall so request within 30 days of receipt of notice, to declare this lease void and the Lessor may then take immediate possession of the land provided Lessee does not cure its default within 30 days or, if Lessee requests a hearing and does not cure its defaults within 20 days after the final decision resulting from said hearing. After restrictions are removed, the Lessor may use any available remedy in law or equity for breach of this contract by the Lessee. The remedies specified hereunder are in addition to remedies specifically provided in 25 CFR 171 and 177.

XXXV. OBLIGATIONS. While the leased premises are in trust or restricted status, all of the Lessee's obligations under this lease and the obligations of his sureties, are to the United States as well as the owners of the land.

Article X - Continued: (6) Within 20 days after the anniversary date of the lease, the lessee agrees to file a report to the Mining Supervisor and the Area Director, a report showing the acreage stripped, the amount of acreage rehabilitated, the method of rehabilitation and the number of acres graded and backfilled.

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above-mentioned.

Two Witnesses to Execution by Lessor:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Lessor) Walter Vandever, or heirs,  
as the case may be

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

Two Witnesses to Execution by Lessee:

Barbara J. Ruiz  
(Name)

G. Warnock  
(Lessee) G. Warnock

2105 San Francisco NE  
(Address) Albq, New Mexico  
87109

3620 Wyoming Blvd. NE  
(Address) Albuquerque, NM 87111

Laura J. [Signature]  
13108 [Signature]

Approved under authority of Commissioner's Redlegation Order per 10 BIAM,  
Section 3.1.

OCT 23 1975

\_\_\_\_\_  
Date

ACTING ASSISTANT

151 JOHN J. BOKAN

\_\_\_\_\_  
Area Director

### ACKNOWLEDGEMENT OF LESSEE

STATE OF New Mexico )  
 ) ss  
COUNTY OF Bernalillo )

On this 8<sup>th</sup> day of October, 1975, before me

appeared G. Warnock, to me personally known,

who being by me duly sworn did say that he is the Owner Lessee

(and that the seal affixed to said instrument is the corporate seal of said corporation), and that the said instrument was signed and sealed in behalf of said corporation by authority of its Board of Director, and said \_\_\_\_\_ of \_\_\_\_\_

and deed of said corporation. acknowledges said instrument to be the free act

WITNESS my hand and seal the day and year first above written.

**Notary Public**

My Commission Expires: 5-5-78

\*\*\*\*\*

### ACKNOWLEDGEMENT OF LESSOR

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On \_\_\_\_\_, 19\_\_\_\_, before me, the undersigned, a Notary Public in  
and for the said County and State, personally appeared \_\_\_\_\_

                     to me known to be the identical person who subscribed the name of the maker thereof of the foregoing instrument and acknowledged to me that (he, she) executed the same as (his, her) free and voluntary act and deed, and as the free and voluntary act and deed of such corporation, for the uses and purposes set forth therein.

**Notary Public**

My Commission Expires: \_\_\_\_\_

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above-mentioned.

Two Witnesses to Execution by Lessor:

(Name)

(Lessor) Walter Vandever, or heirs, as the case may be

(Address)

(Address)

(Name)

(Address)

Two Witnesses to Execution by Lessee:

(Name)

(Lessee) G. Warnock

(Address)

3620 Wyoming Blvd. NE  
(Address)

Albuquerque, NM 87111

Approved under authority of Commissioner's Redlegation Order per 10 BIAM,  
Section 3.1.

OCT 23 1975

Date

ACTING ASSISTANT

Area Director

CANCELED

OCT. 23, 1985

15/ Wilbur D. Wilkinson

AREA DIRECTOR

-13-

Signet  
10-22-75

URANIUM ROYALTY SCHEDULE

Royalty: to pay or cause to be paid to the Bureau of Indian Affairs, Area Director, Navajo Area Office, Window Rock, Arizona, for the use and benefit of the lessor, a royalty calculated by the following formula:

$$\text{Percentage Royalty Rate} = 6.00\% + 0.05\% \left( \frac{\text{(Value per dry ton)}}{\$1.00} \right)$$

The percentage royalty rate derived by the above formula is to be applied to the "value per dry ton" as defined below for the purpose of determining the amount of royalty due.

- (a) "Value per dry ton"; wherever used herein, is defined as follows:

The value, expressed in dollars, of a dry ton (2,000 lbs.) of crude uranium ore, such value to be determined by multiplying the weighted average content per dry ton of uranium concentrate in the crude ore produced from the leased premises, by the weighted average price per pound paid for all uranium concentrate obtained from said ore when sold by the lessee, or company processing lessee's ore during the period for which royalty is being computed. If there are no sales of uranium concentrate during the period for which royalty is being computed, the price of uranium concentrate applied will be the weighted average price per pound received by the lessee or company processing lessee's ore then concentrates were sold during the preceding six month period.

- (b) Whenever vanadium and other minerals associated with uranium are recovered and sold by the lessee, or company processing lessee's ore, the lessee shall pay to or for the benefit of the lessor a royalty of ten (10) percent of the gross proceeds derived from such sale; and where the lessee retains possession of the associated mineral products, a separate royalty value will be negotiated.
- (c) The lessee agrees to pay to or for the benefit of the lessor a royalty of ten (10) percent of the value of uranium concentrate recovered from mine waters (whether natural or introduced); from leaching ores in place on the leased lands or from leaching such materials after they have been mined (unless the crude ore has been weighed and assayed prior to leaching) or extracted from the leased lands; or from leaching the waste material resulting from the treatment of ores from the leased lands. The value of uranium concentrate, as used herein, shall be the weighted average price per pound paid for all uranium contained in concentrate, at the processing plant producing such concentrate, during the period for which royalty is being computed, except that if no sales have been made during the period for which royalty is being computed, the value of uranium concentrate shall be the weighted average price per pound received by the lessee or the seller of lessee's concentrate during the preceding six (6) months.



- (d) In the event, there have been no sales of uranium or vanadium concentrates, or minerals associated therewith, in the six months preceding the period for which royalty is being computed, or for other undefined circumstances, the Secretary or his authorized representative may establish reasonable minimum values for the purpose of computing royalty on any of the leased deposits, due consideration being given to the highest price paid for a part or a majority of the products of like quality produced from the same general area, the price received by the lessee, posted prices, and other relevant matters.

## SIGNATURE SHEET

To be attached to and become a part of Form 5-159 Contract No. N00-C-14-20-5681

Two Witnesses to Execution by Lessor:

Lessor:

P. O. \_\_\_\_\_

Emma Vandever, or heirs, as the case  
Census No. may be. 6842 ✓

P.O. \_\_\_\_\_

Address \_\_\_\_\_

P. O. Edison RangeBROWN VANDEVER ✓Thomas A. Parkhill

Brown Vandever

7407 Central NECensus No. 6841 ✓P. O. Alb., N. Mex. 87108Address P.O. Box 262 PREWITTP. O. Lamp Vandever, Sr.Cheer Vandever ✓Thomas A. ParkhillCensus No. 6840 ✓7407 Central NEP. O. Alb., N. Mex. 87108Address P.O. Box 102, PREWITTEdith H. VoreP. O. Box 66 Church RdJoe Vandever ✓Leona M. NoonCensus No. 6839 ✓P. O. Cedar Hill Apt 94MAddress Box 289 Kinistota, N. Mex.Willing, N. M.P. O. Milton VandeverMary Vandever Ashley ✓Thomas A. ParkhillCensus No. 6837 ✓7407 Central NEP. O. Alb., N. Mex 87108Address P.O. Box 71, PREWITTEllen DelgadoMay Vandever Delgarito ✓Thomas A. ParkhillCensus No. 86817 ✓7407 Central NE, Alb., N. Mex 87108P. O. Alb., N. Mex 87108Address Box 225 Prewitt N.M.Alb., N. Mex 87108Helen Vandever ✓Alb., N. Mex 87108Census No. 49539 ✓Alb., N. Mex 87108Address P.O. Box 384, PREWITTAlb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108Alb., N. Mex 87108

Superintendent for and on behalf of the following minor(s) per authority given under 25 CFR 172.5:

\_\_\_\_\_  
Superintendent

Superintendent for and on behalf of the following heirs where the estate of the owner is unprobated and/or where the whereabouts of the heirs of such deceased owner are unknown per 25 CFR 172.9:

Emma Vandever C#6842

  
Acting Superintendent

STATE OF NEW MEXICO     )  
                                      ) ss.  
COUNTY OF                    )

Before me, a notary public in and for the State and County aforesaid, on this 16 day of October, 1975, personally appeared Medardo Gonzales, Acting Superintendent, Eastern Navajo Agency, acting on behalf of Emma Vandever C#6842

Minor(s), deceased heir whose estate has not been determined, or whose whereabouts is not known, to me to be the identical person who executed the within and foregoing, and acknowledged to me that he executed the same as his voluntary act and deed for the uses and purposes therein set forth.

My Commission expires:  
My Commission expires May 10, 1979

  
Notary Public

Environmental Assessment of  
Proposed Uranium Mining Lease  
Sale on Allotted Land  
Sale 7

Introduction

The Navajo Area Office (Real Property Management) during the past year has received verbal and written requests from individuals and companies interested in leasing Navajo Indian allotted lands located in McKinley County, New Mexico, for uranium exploration and/or mining purposes.

The general area of interest is in the off-reservation area from north of Prewitt, New Mexico, northerly to Casamero Lake; then westerly to the Smith Lake-Mariano Lake area and westerly along the southern boundary of the Navajo reservation to the Church Rock area.

In December 1971, 566 tracts of allotted land located in the same region described above were advertised for competitive leasing for uranium leasing purposes. 244 tracts received bids. Most of the tracts have since been explored and released. Some tracts are considered to have ore deposits but at great depths making it uneconomical to mine. Some of the tracts are being scheduled for mining in the near future while others are still in the exploration stages and results being evaluated.

The mineral rights in these allotments are owned by the allottees who will receive the bonus bids, annual rentals and production royalties, if any are developed.

The mining leases are on a standard form with a term of 10 years and for so long thereafter as ores are produced in paying quantities. The royalty schedule has recently been revised pursuant to recommendation of the U. S. Geological Survey and approval of the Commissioner, Bureau of Indian Affairs.

The lease forms contain provisions for the lessee to comply with all applicable regulations mainly 25 CFR 172, 25 CFR 177 and 30 CFR 231.

A general review of the advertisement for bids and the past history of leasing these lands for uranium exploration and mining indicate that drilling depths range from 700 feet to 1100 feet with an average of 952 feet, indicate that these lands are used primarily for dwellings and minimal grazing. The grazing is limited due to sparse grasslands with some juniper or pinion in some of the tracts. The terrain varies from semi-desert plains or rolling hills to rocky mesas and high ridges with little or no improved access roads. The elevation average ranges above 6,000 feet to 7,000 feet. Water is obtainable from underground sources. Dwellings will not be disturbed.

The lease provisions provide adequate protection for the benefit of the land-owners and local land-users against damages to the surface, improvements and livestock. The lessee's operations will also be under the supervision of the U. S. Geological Survey.

Economically, the landowners and others living in the area of exploration or mining would benefit from the bonus and rental payments. When mining and production commences, greater monetary benefits can be expected. Some would also benefit through employment.

An environmental review of the lease advertisement shows that the quality of the environment will not be significantly affected to such an extent as to be rendered unsuitable for human and wildlife habitation, or to supplant the economic benefits from employment and income to the land-owners.

Approval of the advertisement and leases to be issued is not a major Federal action significantly affecting the quality of human environment. Thus, an environmental impact statement is not necessary.

A handwritten signature in cursive script, reading "Thomas Lynch". The signature is written in dark ink and is positioned above the printed name.

Thomas Lynch

ENVIRONMENTAL EXAMINATION OF PROPOSED  
URANIUM MINING LEASE ON  
NAVAJO ALLOTTED LAND

Land use in the area of the proposed lease site consist of rangeland grazing and energy resource development. Energy resource development consists of uranium mining and milling. However, no uranium milling operations are being considered for the lease site.

No future developments, other than the proposed mining operation is planned in the immediate area of the lease site.

Construction of a coal-fired steam electric generating facility by Plains Electric Generation and Transmission Cooperative, Inc. is planned approximately 10 miles northwest of the lease site. Neither project can be expected to have any impact upon the other.

There are no major urban centers near the lease site. The closest communities are Grants-Milan, approximately 15 miles southeast, San Mateo approximately 16 miles east and Thoreau, approximately 16 miles west.

Operations of the proposed mine on the lease site will have little to no direct effect on these communities.

Topography in the area consists of sandstone outcrops, bedrock and some sholes. Soils range from a fine sandy loam to a thin silty clay loam.

The lease site is situated approximately one mile southwest of Mesa Montenosa, at the base of Haystack Mountain, a well known mesa in the area.

There are no perennial surface waters within the lease site. There are no floodplains or wetlands as defined in Executive Orders 11988 and 11990, respectively, within the lease site.

The proposed mine site lies within the Bluewater Basin, whose principal aquifers lie in the Gloriets Sandstone and overlying San Andreas limestone formations.

The shallow depth (150' - 180') of the proposed mining operation relative to the depth of the aquifers is such that the proposed project will have no effect upon them.

There will be little to no impact on the wildlife in the area of the lease site since no major surface disturbances or activities are planned.

There are no known cultural resources located on the project site. However, an archeological survey and archeological clearance shall be required prior to the commencement of any exploration or mining activities on the lease site.

Because of the nature of the proposed exploration and mining activities on the lease site, no long term adverse impacts are anticipated by the proposed federal action.

The review and approval process of the required mining and mining reclamation plans will provide assurance of mitigating actions required to negate or reduce any adverse impacts resulting from the proposed operations.



DESCRIPTION OF THE PROPOSED  
URANIUM MINING LEASE ON  
NAVAJO ALLOTTED LAND

In February 1975, the Navajo Area Office, Bureau of Indian Affairs received a request from Mr. George Warnock for permission to negotiate a uranium mining lease with Brown Vandever, the allottee. The allotment is located in the SW $\frac{1}{4}$  of Sec. 18, T. 13 N., R. 10 W., McKinley County, New Mexico, containing approx. 163.38 acres, more or less. The land is located on or near Haystack Mountain in the Grants mineral belt north and east of I-40 near Prewitt, New Mexico.

Considerable mining was done on this allotment during the 1950s when it was not economical to mine low grade ore. Much of the high grade has been mined. Mr. Warnock feels that sufficient quantities of commercial grade ore remains. He also plans to undertake an exploration program upon approval of the lease to determine an estimated ore body. He presently holds a mining lease from Mr. Walter Vandever and heirs Allotment No. 077411, located in the N $\frac{1}{2}$  of N $\frac{1}{2}$  of Sec. 13, T. 13 N., R. 11 W., NMPM, McKinley County, New Mexico.

Mr. Warnock's request was denied due to the high uranium price and because a negotiated lease was not considered to have resulted in the best deal for Mr. Vandever without the benefit of an advertised sale so in October 1975, Mr. Vandever's allotment was included in uranium lease sale #7. Mr. Warnock's Company, Todilto Exploration and Development Corporation, submitted a bid on the allotment but the BIA rejected his bid of \$2.56 per acre. However, he was successful on another tract adjacent or near this tract on which he holds mining lease approved by the BIA.

Mr. Brown Vandever's land is bounded on two sides by property which the above corporation is presently mining and producing. Also the landowner since 1975 has been in support of Mr. Warnock's request to enter into a mining lease and has been very active in supporting the request.

The BIA has not received inquires or other requests for a mining lease on this allotment and is therefore considered an isolated tract located in a unique situation adjoining an on going mining operation. If any environmental impacts have subjected this tract to any health or other problems, surely Mr. Warnock's mining operation would have considered the cause of any adverse affects. His mining operations have brought employment to Navajo Indians plus non-Indians over the 4 years of his mining activity. The approval of this mining lease and subsequent exploration and mining operations will not result in any adverse environmental affects to quality of life. The surface of the allotment will not be disturbed by any surface mining except for the normally required mine portals or other mine entries including surface facilities. However, this entry to the underground ore bodies in this allotment is to mined through existing underground drifts

(workings), Mr. Warnock does not plan any additional surface disturbance to gain access to the ore bodies. The only surface disturbance will result from exploration drilling required necessary to delineate and evaluate the location of ore bodies.

On January 15, 1980, the landowner met with the Area Realty Officer and received advice and assistance on negotiation procedures. The terms and conditions of the lease were explained to Mr. Vandever. Mr. Warnock's offer and suggestions for the highest monetary benefits to be gained were discussed with him. Mr. Vandever subsequently telephoned the Area Realty Office and advised of his acceptance of Mr. Warnock's offer instead of figures suggested by the Area Real Property Management Office. Mr. Vandever said he had decided to accept Mr. Warnock's cash bonus offer of \$75.00 per acre, \$5.00 per acre annual rent and a \$20.00 per acre annual advance minimum royalty and the royalty schedule as contained in leases from uranium lease sale #7.

Prior to January 15, 1980, the Bureau of Indian Affairs requested and received comments on Mr. Warnock's original bonus offer of \$53.00 per acre, \$1.00 per acre rent and royalty contained in sale #7 schedule. The Bureau of Mines staff of mineral economists evaluated the proposal on the basis of available information furnished by Mr. Warnock. The Bureau of Mines recommended a flat 10% royalty - 10% of the value of the yellowcake meaning the sales and/or gross receipts for the yellowcake from the buyer after allowance for transportation costs.

This information was contained in Washington office letter of 11/29/79 transmitting the evaluation report which are made a supportive part of this examination. Further review of this 10% recommendation against the royalty schedule from Sale # 7 with the Area Mining Supervisor, U. S. Geological Survey and off-recorded consultation with the Navajo Tribe's Office of Mineral Development technical staff members revealed that Sale #7 schedule would result in higher returns primarily due to the higher price to be paid for yellowcake as the grade of ore increases. Whereas, a flat 10% rate would return a flat 10% of the net value regardless of the grade of ore. It was decided to recommend to Mr. Vandever to accept the Sale #7 royalty schedule.

The many occasions of telephone conversations with various technicians and advisors which lead to this decision to authorize a negotiated sale, unfortunately will not be made a part of this examination due to their cumbersome content and lack of write-ups but without such conversations this decision would not have been possible.

The following are references to letters and reports and/or recommendations in the file supportive to this examination:

1. Numerous requests from Mr. Warnock and Mr. Vandever for permission to negotiate beginning in February 1975.

2. Area Real Property Management Office request on proposed action dated February 17, 1979.
3. U. S. Geological Survey reports to the Bureau of Indian Affairs dated March 20, 1979 and March 26, 1979 with inspection report dated April 12, 1977.
4. Washington Bureau of Indian Affairs letter of November 2, 1979 with Bureau of Mines report.
5. Telephone conversation on April 1, 1980, Mr. Warnock advised Mr. Lynch that his open mine operation started in June 1975 in Sec. 19 and into Sec. 13 in July 1975. Also, he indicated that the exploration plan has been submitted to U. S. Geological Survey, plan consists of drilling 165 holes for 20,000 ft. and request to fill in 1,000 holes. The plan is for underground mining 150' - 180' depth, life of the mine is estimated at 5 years. More definite information will be provided as the results of the drilling program. Drilling program may indicate need for surface disturbance if ore is shallower than 150'.

In addition to the above considerations, the Mining Engineer, U. S. Geological Survey and the Washington Bureau of Indian Affairs were contacted by phone and discussed the economics of a lease operation by a second operation adjacent to an on-going operation probably would be unattractive, while the present operator at the location would not be required to start a new drilling and mining program. The present operator is already in possession of the geology information and other data to enable a continued operation. His mining equipment is already in place. A new operator would not have these benefits immediately upon approval of the lease.

The provisions of 25 CFR 131 and all applicable regulation have been met and included in the lease stipulation as it pertains to the following, but not limited to 25 CFR 172, 177, and 30 CFR 231, except as qualified herein. Rate of royalty, the annual rental or the term of the lease may not be changed by a future regulation without the written consent of the parties to this lease, except as provided in this lease.

Inspection to the leased land appurtenances, and all documents of the lessee may be inspected by the lessor, his Agents, or the Secretary.

The lessee requires to file a mining and reclamation plan before commencing any exploration and mining operations on the leased premise. The plan must include provisions to preserve and protect the natural environment conditions of the land encompassed by this lease, or land affected by his exploration or mining operations, and restoration of disturbed areas. The U. S. Geological Survey will approve the mining plan and will enforce the lease provisions and the mining reclamation plan.

It has been determined that this action does not significantly affect the quality of the human environment to require the preparation of an environmental impact statement under Section 102 (2) (c) of the National Environmental Policy Act of 1969 42 U.S.C. 4223 (2) (c).

Uranium

EA No. A-80-1

United States Department of the Interior  
Geological Survey  
Originating Office and Address

USUAL ENVIRONMENTAL ASSESSMENT

Date June 13, 1980

Operator Todilto Exploration and Development Corp. Project or Well Name and No. \_\_\_\_\_

Location SW/4 Section 18 Township 13 North Range 10 West

County McKinley State New Mexico Field/Unit \_\_\_\_\_

Lease No. NOO-C-14-20-8369 Permit No. \_\_\_\_\_

Joint Field Inspection Date: June 3, 1980

Field Inspection Participants, Titles, and Organizations:

David R. Sitzler, Mining Engineer, USGS

Prepared by:

David R. Sitzler,  
Mining Engineer

Related Environmental Documents:

Environmental Analysis - Koppen Mining Construction Corp. -  
Section 6 Mine

Environmental Analysis - Todilto Exploration and Development  
Corporation - Exploration Plan for Lease NOO-C-14-20-5681

EA NO. A-80-1

Date: June 13, 1980

Description of the Proposed Action:

The proposed action consists of the approval of an original exploration program to explore for uranium ore bodies on land covered by one Navajo Allotted Mining Lease. The lease, NOO-C-14-20-8369, is located approximately 15 miles northwest of the Grants/Milan area in McKinley County, New Mexico. The land covered by Allotted Lease -8369, is in the Southwest Quarter, Section 18, Township 18 North, Range 10 West, N.M.P.M.

The proposed exploration plan was submitted by Todilto Exploration and Development Corporation (TEDCO) on April 1, 1980. The proposed action was submitted to the Navajo Area Office, Bureau of Indian Affairs on April 22, 1980, for their review. Their recommendations for the protection of the non-mineral resources and for the reclamation of the land surface are in Appendix C. No other action by other Federal or State agencies is pending.

Surface and mineral rights to this leased land belongs to Brown Vandever, who was allotted this land from the BIA. TEDCO has the mineral rights to the BLM land in the Northwest Quarter of Section 18, which are staked as the Tess 1 through 10 claims. The mineral rights to the Southeast Quarter, and the south half of the north half of Section 13, Township 13 North, Range 11 West, N.M.P.M. are owned by the Department of Energy and leased to TEDCO. The surface rights are reserved for use of the Navajo Nation by Public Order No. 2178. TEDCO additionally holds Navajo Allotted Mining Lease NOO-C-14-20-5681 on the north half of the north half of Section 13. TEDCO holds mineral rights to the north half of the Northwest Quarter of Section 19, Township 13 North, Range 10 North, and Southwest Quarter of Section 13, Township 13 North, Range 11 West, N.M.P.M., by lease from the Santa Fe Pacific Railroad Company.

This plan calls for the drilling of 165 holes. Each hole will be between 130 to 180 feet in depth, and will be bottomed in the Entrada Limestone.

Alternatives to the Proposed Action:

1. Disapproving the Requested Action:

This alternative would prevent all of the environmental impacts. It would also prevent the allottee from realizing any economic benefit of the uranium suspect to be present on his land.

2. Approving the Requested Action:

No other exploration method or modification of the proposed exploration plan would minimize or reduce the possible environmental impacts.

EA NO. A-80-1

Date: June 13, 1980

Adverse Environmental Effects:

The only adverse environmental effect of this project would be the disturbance of a portion of the lease surface from the construction of access roads and drill sites, and the resultant disturbance of any accompanying vegetation. This environmental effect would only be temporary. It will be alleviated upon completion of reclamation activities.

Recommended Approval Conditions:

TEDCO will follow the U. S. Geological Survey Drilling Requirements of May 10, 1979, as amended May 20, 1980.

Controversial Issues and Conservation Division Responses:

The required posting of the public notice for the proposed project has resulted in no comments with opposing or conflicting views, nor evidence of controversy.

Finding of No Significant Impact:

We have considered the proposed exploration plan in the preceeding pages of this Environmental Assessment, and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly impact the quality of the human environment (40 CFR 1508.27).

Determination:

I determine that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102(2)(C).

 Acting Deputy Cons. Mgr. Mining 6/23/80  
(Signature and Title of Approving Official) (Date)

References:

Edwards, Gregory Alan, Environmental Analysis, Proposed Exploration Plan, Todilto Exploration and Development Corp., NOO-C-14-20-5681, June 21, 1976.

Final Environmental Impact Statement, Navajo-Exxon Uranium Development, November 16, 1976.

Sitzler, David R., Environmental Analysis - Koppen Mining Construction Corp., Section 6 Mine, September 28, 1978.



UNITED STATES GOVERNMENT

# Memorandum

TO

Howard Gentry

DATE:

July 30/1976

FROM :

Environmental Quality Officer

T. Lynch, Realty Specialist

SUBJECT:

Environmental Analysis of Todillo  
exploration plan - Allot. Land Uranium  
Lease #N00-C-10-20-5681. Please review  
and return with your comments, if any

T. Lynch

Returned w/o comment 8/23/76



IN REPLY  
REFER TO:

# United States Department of the Interior

## GEOLOGICAL SURVEY

P.O. BOX 1716  
CARLSBAD, NEW MEXICO 88220

July 2, 1976

|                    |
|--------------------|
| ANPMO              |
| ASST               |
| MINERALS <i>TL</i> |
| OGC                |
| LEASING            |
| R/W                |
| BR. SEC.           |
| FILE               |

### Memorandum

To: Realty Specialist, Navajo Area Office,  
BIA, Window Rock, Arizona

From: Area Mining Supervisor, SRMA, USGS,  
Carlsbad, New Mexico

Subject: Todilto Exploration and Development  
Corporation's Exploration Plan for Navajo  
Allotted Lease NOO-C-14-20-5681

Enclosed for your files is a copy of our Environmental Analysis of the subject plan. Please note that a copy of the stipulations that were added to the plan and were included in our letter of approval of the subject plan is included in Appendix D of the Environmental Analysis.

*Gregory Alan Edwards*

Gregory Alan Edwards  
Mining Engineer  
for Area Mining Supervisor

GAE:cj

Enclosures

RECEIVED

JUL - 6 1976

Area Branch of  
Bureau of Property Management

ENVIRONMENTAL ANALYSIS

Proposed  
Exploration Plan  
Todilto Exploration and Development Corporation

Navajo Allotted Lease  
N00-C-14-20-5681  
McKinley County, New Mexico

U. S. Geological Survey  
Conservation Division  
P. O. Box 1715  
Carlsbad, New Mexico 88220

Prepared By  
Gregory Alan Edwards  
Mining Engineer  
June 21, 1976

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| IV. Environmental Effects and Mitigative Measures | 8           |
| V. Alternatives to the Proposed Action            | 12          |
| VI. Unavoidable Adverse Environmental Effects     | 12          |
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### Maps

- A. Project Location Map
- B. Lease Location Map
- C. Topography Map

### Appendices

- A. Geologists Memorandum Report
- B. Archaeological Clearance
- C. Comments from BIA
- D. Relevant Correspondence

I. Description of the Proposed Action

The proposed action consists of an original exploration drilling program to explore for uranium ore bodies on lands covered by one (1) Navajo Allotted Uranium Lease. The Navajo allotted lease covered by this plan is NOO-C-14-20-5681 and is located approximately fifteen (15) miles north-northwest of Grants-Milan in McKinley County, New Mexico. The proposed exploration plan was submitted by Todilto Exploration and Development Corporation (TEDCO) on April 12, 1976, under the provisions of 25 CFR 177.6. The proposed action was submitted to the Bureau of Indian Affairs in Window Rock, Arizona, on May 4, 1976, for their review. Their recommendations for the protection of nonmineral resources and for the reclamation of the land surface are in Appendix C. No other actions by other Federal or State agencies is pending.

The land covered by allotted Lease NOO-C-14-20-5681 is in the N/2 of the N/2 of Section 13 in Township 13 North, Range 11 West, N.M.P.M. The acreage covered by the lease is approximately 160 acres. TEDCO acquired the lease October 8, 1975, at the Navajo Allotted Land Uranium #7 sale at Window Rock, Arizona

The Energy Research and Development Administration (ERDA) controls the mineral rights to the S/2 of the N/2 and the SE/4 of Section 13, Township 13 North, Range 11 West. The surface rights are held by the Navajo Nation. TEDCO holds this property under a lease from ERDA. In addition, TEDCO has leased the SW/4 of Section 13, Township 13 North, Range 11 West and the N/2 of the NW/4 of Section 19, Township

13 North, Range 10 West, from the Santa Fe Pacific Railroad Company (SFP). The locations of allotted lease -5681 and the ERDA and SFP properties are shown on Map C. TEDCO is currently mining by strip mine methods from the ERDA and SFP properties. TEDCO has received approval from ERDA for an underground mining plan which may be in operation in mid-July, 1976.

The purpose of this proposed exploration plan is to find and delineate uranium ore bodies on the lands covered by allotted lease -5681. If commercial deposits or uranium ore are discovered, it would be mined concurrently with the uranium ore from the adjacent leases.

The proposed exploration plan provides for the drilling of a total of 104 holes to an average depth of 130 feet. The drilling depth would vary from twenty-five (25) feet to five hundred (500) feet. The 4 3/4 inch holes would be drilled with rotary drill rigs with a maximum hole diameter of about five (5) inches. About one (1) in five (5) holes would be cored. Additional offset drilling is requested by TEDCO if it is necessary to delineate particular uranium ore bodies.

The primary hosts for uranium mineralization are the Westwater Canyon Member of the Morrison Formation and the Todilto Limestone Formation. Twenty-one (21) holes would be drilled on the steeply sloping flank of Haystack Mountain and would be collared in one of the members of the Morrison Formation. Due to the steep surface slope and structural relief, the members of the Morrison Formation outcrop within the lease property. Few drill holes are expected to penetrate the Westwater Canyon Member. The remainder of the holes will be in

those areas of gently sloping terrain which slopes away from the base of Haystack Mountain. These holes would be collared in either the Bluff Formation or Summerville Formation of the San Rafael Group.

Each hole would be probed by a geophysical logging truck for the length of the hole to record data relating to radioactivity and the formations encountered. The results recorded on electrical logs would be comprised of Gamma, self-potential and resistivity curves.

Two truck mounted rotary drill rigs and supporting equipment would be used to carry out the proposed drilling program. The two drill rigs would be Fayling 1000's. The supporting equipment would consist of two 2.5 ton water trucks and two pickups for use by the drilling crew. Two geological field vehicles would be used in the area during the drilling program.

One new access road would be built prior to the initiation of the proposed drilling program on the steep north flank of Haystack Mountain. A new road is necessary in this area to provide access to the proposed drill sites. The new access road would be eighteen (18) feet wide and approximately 1 1/4 miles long. The access road would be built using a D-7-F bulldozer.

No new road construction will be required for access to the proposed drill hole sites located to the west and north of Haystack Mountain. The terrain at the location of these is gently sloping. Existing roads and trails would be used wherever possible.

Few drill sites would require site preparation. Site disturbance approximately equal in area to the size of the drill rig is the only



surface disturbance expected on those sites requiring site preparation. All drill holes would be drilled using air unless circulation problems require using water and foam. For those holes requiring drilling mud, portable mud pits would be used. Therefore, no dug mud pits would be required.

Total surface disturbance due to road construction is expected to involve approximately 2 3/4 acres. Approximately two (2) acres of land would be disturbed by site preparation.

Noise levels are expected to range from 75 to 90 decibels. The drilling crews will work eight hour shifts but would not be subjected to maximum noise on a continuous basis. TEDCO does not currently have on-site noise level measuring devices.

All working holes shall be temporarily plugged with 6"x6" pointed wooden plugs. The State Engineer's hole abandonment procedures will be followed upon final abandonment of the hole. All areas of surface disturbances caused by drill site and road construction or off-road usage shall be bladed, contoured and revegetated.

TEDCO has had an archaeological survey performed on the lease property by Charles H. Carroll of the University of New Mexico. The survey has been approved and archaeological clearance granted by the National Park Service (See Appendix B). Nine (9) archaeological sites were observed and marked in the field by the survey crew. No drilling operations will occur within the site areas unless mitigative measures are developed with the U. S. Park Service, Chaco Center.

All trash and debris shall be transported from the lease area and disposed of in the covered land fill dump at the Haystack Mine.

TEDCO desires to commence road construction and drilling activities concurrently around mid-June to the first of July. The exploration drilling activities are expected to take two months for completion of the initial phase. Offset drilling operations would extend this two months time period.

## II. Description of the Existing Environment

The lease area is situated in the Ambrosia Lake District of the Colorado Plateau's Physiographic Plateau. The topography is precipitous with many cliffs forming around the benches and mesas. The most prominent feature in the area is Haystack Mountain which was the location of the first uranium discovery in New Mexico (See Map C). Haystack Mountain is a flat topped mesa elongated in an east-west direction. The highest point on Haystack Mountain lies at an elevation of 7833 feet. The terrain drops rapidly from the top of Haystack Mountain to an elevation of around 7100 feet. The terrain on the remainder of the lease property slopes generally towards the northwest. The lowest point on the lease property lies at an elevation of about 7,010 feet. The total relief within the property is about 823 feet.

The climate in the area in which the lease property is contained is considered to be semi-arid. The average annual rainfall is about twelve (12) inches. Most of this rainfall occurs in July or August. No perennial streams exist within the area. Streamflow occurs usually

for short durations only after periods of significant precipitation.

Existing vegetation in the area is typical of the semi-arid climate. It consists of sage brush and the wild grasses common to the area on the lower areas of the property. Native grasses are almost nonexistent in the area. Junipers grow on some of the higher benches and along the flank of Haystack Mountain.

The wildlife in the area consists of rabbits, rattlesnakes, lizards and other animals typical of Northwest New Mexico. An occasional coyote or bobcat may also be found on the property.

The primary existing land use is grazing. About 1/2 acre of land in the northwest corner of the leasehold is fenced off. This is the homestead of Mary V. Delgarito. According to the conditions of the lease, consent shall be obtained from the landowner prior to any drilling in the immediate area of the Delgarito homestead.

### III. Description of the Geology

Figure 1 on the following page is a stratigraphic chart for the Haystack Mountain area. It shows the relative positions of all of the formations in the area. The highest stratigraphic member to be encountered is the Brushy Basin Member of the Morrison Formation. The primary hosts for uranium in this area are the Westwater Canyon Member and the Todilto Limestone Member. The formations to be penetrated are the Brushy Basin, Westwater Canyon and Recapture Members of the Morrison Formation and the Bluff Sandstone, Summerville Formation and Todilto Limestone of the San Rafael Group. The drill holes will bottom in the Entrada Sandstone.

| Stem             | Series                 | Group       | Formation             | Rock Type   | Thickness (Ft.) |
|------------------|------------------------|-------------|-----------------------|---|-----------------|
| Quaternary       | Recent and Pleistocene |             |                       | Sand, gravel, loess                               | 0-100           |
|                  |                        |             | UNCONFORMITY          | Cinders, basalt                                   | 0-200           |
| Cretaceous       | Upper                  | Mesaverde   | Gallup sandstone      | Sandstone   | 60-120          |
|                  |                        |             | Mancos shale          | Shale   | 850-900         |
|                  | Lower                  |             | Dakota sandstone      | Sandstone, shale, coal                            | 50-100          |
|                  |                        |             | UNCONFORMITY          |   |                 |
| Jurassic         | Upper                  | Morrison    | Brushy Basin mbr.     | Mudstone, siltstone, ss.                          | 45-100          |
|                  |                        |             | Westwater Canyon mbr. | Sandstone   | 125-185         |
|                  |                        |             | Recapture mbr.        | Siltstone, mudstone                               | 125-245         |
|                  |                        | San Rafael  | Bluff sandstone       | Sandstone   | 100-300         |
|                  |                        |             | Summerville formation | Sandstone, siltstone, shale                       | 150-200         |
|                  |                        |             | Todilto limestone     | Limestone   | 25-35           |
|                  |                        |             | Entrada sandstone     | Sandstone   | 135-150         |
|                  |                        |             | Carmel formation      | Sandstone, siltstone                              | 35-50           |
|                  |                        |             | UNCONFORMITY          |   |                 |
| Triassic         | Upper                  | Glen Canyon | Wingate sandstone     | Sandstone   | 110-120         |
|                  |                        |             | Chinle formation      | Mudstone, siltstone, sandstone, conglomerate      | 1200-1600       |
|                  | Lower and Middle(?)    |             | UNCONFORMITY          |   |                 |
|                  |                        |             | Moenkopi formation    | Siltstone, mudstone                               | 25-50           |
| Permian          | Leonard                |             | UNCONFORMITY          |   |                 |
|                  |                        |             | San Andres limestone  | Limestone, sandstone                              | 95-130          |
|                  |                        |             | Glorieta sandstone    | Sandstone   | 200-375         |
|                  | Wolfcamp               |             | Yeso formation        | Siltstone, sandstone, mudstone, limestone         | 650-1000        |
|                  |                        |             | Abo formation         | Siltstone, sandstone, conglomerate                | 600-650         |
| Pennsylvanian(?) |                        |             |                       | Conglomerate, arkose, sandstone, shale, limestone | 0-150           |
| Precambrian      |                        |             | UNCONFORMITY          | Granite, gneiss, metarhyolite, schist             |                 |

After W. L. Chengchih

Stratigraphic chart, Haystack Butte and vicinity, northeast flank of the Zuni Uplift, New Mexico

Structurally the beds dip northeast at three (3) to five (5) degrees. Minor normal faults displace beds from 3 to 85 feet in the area. The faulting trends east-west and northeasterly. No geologic hazards are known or expected to exist in the exploration area.

No aquifers are expected to exist within the lease property which will be penetrated by the drilling. The Westwater Canyon Member is a potential aquifer in other areas, but in this area it outcrops all around Haystack Mountain. Therefore, little water is expected to be encountered during drilling operations.

#### IV. Environmental Effects and Mitigative Measures

The proposed drilling program's most significant impact on the environment would be the disturbance of the land surface by the preparation of drill sites and access roads and the resultant destruction of the accompanying vegetation. The total surface disturbance, which would be expected as a result of the proposed drilling program, is about 4 3/4 acres. This includes about 2 3/4 acres for road construction and about 2 acres for drill site preparation.

Additional damage to the existing surface vegetation could result from the careless burning of refuse. Possible littering could also degrade the appearance of the property. Serious erosional damage and possible damage to archaeological sites could stem from improperly located drill sites and access roads.

The loss or contamination of groundwater could result from failure to properly control any artesian water encountered in the drill holes. Pollution of the groundwater could be caused by the

introduction of contaminating fluids and solids into the holes. Surface water pollution could result from allowing drilling mud to enter drainages.

The wildlife in the area could be displaced by disturbances caused by the drilling operations. Some air pollution could be generated by the drilling operations and related activities.

The proposed drilling program could adversely affect the lease lands as discussed above. However, these damages could be satisfactorily prevented or rectified by enforcing the applicable provisions of the lease terms and conditions as well as those provisions of the pertinent State and Federal regulations. The protection and restoration measures of the proposed exploration plan also makes adequate provisions to protect the environment.

All areas of surface disturbance will be restored to a condition which approximates, as close as possible, the natural conditions. Upon termination of lease operations, surface disturbances caused by drill site and road construction or off-road usage would be bladed, contoured and revegetated.

The only new access road construction which would be required would be the 1.1/4 miles of new road to access the proposed drill sites on the flank of Haystack Mountain. All construction would be performed in such a manner as to prevent unnecessary damage to vegetation, timber, soil, existing roads, bridges, cattle guards, fences and other improvements. It will be necessary to remove some Junipers during road construction. However, the access road will

be chosen in such a fashion as to minimize damage to vegetated areas. Road construction will be performed so as to prevent damage to watersheds or pollution of the water resources. Water bars will be constructed where necessary to prevent erosion.

Those proposed drill sites which would be accessed by the 1 1/4 miles of new access road on the flank of Haystack Mountain would be located directly on the roadway. No additional site preparation or surface disturbance would be necessary for these drill sites.

Some site preparation would be conducted, when necessary, on the remaining drill sites. Since portable mud pits would be used for those holes where drilling mud is needed, no surface disturbance for mud pits would be required. For many of these drill sites the surface disturbance would only be the drilled hole and a small area possibly twenty (20) feet in diameter surrounding it and the tracks from the drilling vehicles. This would be a total surface disturbance of about 2/3 acre for the remaining holes if no site preparation is necessary. Some sites will require leveling and preparation. This additional surface disturbance would involve about 1 1/3 acres for a total surface disturbance for site preparation of 2 acres. Leveling of drill sites would be done only where necessary.

No open fires would be permitted on the lease property. All trash and debris would be collected and transported from the lease area and disposed of in the covered landfill dump at the Haystack Mine. All archaeological sites were identified by the archaeological survey conducted at TEDCO's request. The locations of the access



road and proposed drill sites would be modified so as to avoid disturbing those archaeological sites. All drill sites and access roads would be bladed, contoured and reseeded where necessary to prevent erosion and restore the surface vegetation,

Little or no artesian water is expected within the exploration area. Any hole which encounters artesian pressure would be plugged full depth with cement. All others would be filled with drilling mud in accordance with the State Engineer's specifications to prevent groundwater contamination. In addition, the holes shall be capped at the surface with a cement plug to a minimum depth of five (5) feet. The driller would exercise caution when drilling to avoid contaminating the hole with chemicals or solids. Since any drilling mud which is required would be confined to the portable mud pits, little spillage is expected. Since the quantities of drilling mud used would be small, the effects of spillage is also expected to be minimal.

The wildlife in the area should not be significantly affected by the proposed drilling program. Adequate surrounding habitat exists for the displaced members. Any displacement of wildlife would be temporary. The possibility of any significant amounts of air pollution is remote due to the lack of any sizeable contributory sources.

Should the exploration plan culminate in a producing mining operation, the total impact on the environment would be temporarily increased by the surface disturbance from the mine construction.

The only construction which would be necessary on the lease property would be the mine shaft and lift facilities. The ore would be stockpiled and handled at the site of the existing Haystack Mining operations. Surface disturbance and any other environmental effects such as surface subsidence, air pollution and contamination or depletion of groundwater reserves would be mitigated by preventative measures specified under an approved mining plan.

V. Alternatives to the Proposed Action

No other exploration method or modification of the proposed exploration plan would minimize or reduce the possible environmental damage. Therefore, the only alternative to the proposed action is to refuse to allow exploration activities to be conducted on the lease property.

VI. Unavoidable Adverse Environmental Effects

The only appreciable unavoidable adverse effect on the environment would be the disturbance of a portion of the leasehold surface from the construction of access roads and drill sites and the resultant destruction of any accompanying vegetation. New access road construction of 1 1/4 miles of an eighteen (18) foot wide roadway will be required on the flank of Haystack Mountain before drilling operations can commence in that area. A total of about 2 3/4 acres would be disturbed by this road construction. Construction would be carried out in such a manner as to minimize the effect on the environment and the terrain as much as possible. No site disturbance for drill site

preparation would be necessary in this area because the proposed drill sites would be located right on the roadway.

Surface disturbance from access road and drill site preparation would be minimized as much as possible on the remainder of the lease property. Existing roads and trails would be utilized wherever possible. The archaeological sites on the lease property are noted, identified and marked. All access road and drill site locations would be relocated where necessary to avoid disturbing these sites.

Implementation of the reclamation and revegetation requirements of the proposed plan and periodic inspections by authorized BIA and USGS personnel during and upon completion of the drilling plan should provide for satisfactory rehabilitation of the affected lands within a reasonably short period of time. Successful revegetation, however, would be entirely dependent upon the presence of sufficient amounts of topsoil and precipitation.

Lease Number N00-C-14-20-5681Leasee (Permittee) Todilto Exploration and Development CorporationCounty McKinley State New MexicoDate June 8, 1976Prepared by Gregory Alan EdwardsOther Agency Representatives Mr. T. A. SchackTodilto Exploration and Development Co.

## PROPOSED ACTION

Roads, bridges, airports, railroads

Transmission lines, pipelines

Dams, impoundments, water diversions

Structures (mine buildings, etc.)

Exploration (drilling and trenching)

Surface excavation (surface mines, shafts, etc.)

Subsurface excavation

Storage (product, waste, spoils, water)

Mineral processing and extraction facilities

Post mining activities

Trucks

Pipelines, conveyors

Railroad

Other Litter

Solid waste (spoils, tails, waste rock)

Sanitary wastes

Liquid effluent discharge

Oil leaks, explosions

Geologic related hazards (subsidence, slope failure, etc.)

Air Pollution

Noise Pollution

Surface Water Availability

Subsurface Water Pollution

Ground Water Availability

Ground Water Pollution

Existing Land Use

Surrounding Land Use

Historical and Archeological Sites

Scenic, Recreational and Aesthetic Values

Endangered Species and Habitat

Plant Populations

Animal Populations

Nesting, Breeding or Migration Sites

Effect on Local Communities

Effect on Cultural Values

Public Health and Safety

Public Interest

Other Erosion

#### VIII. Determination and Recommendation

From the preceding analysis, it is concluded that the proposed action does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Section 102 (2)(c).

It is recommended that the proposed action be approved if Todilto Exploration and Development Corporation will accept the following stipulations for inclusion in the plan.

1. If drilling operations reveal groundwater reserves that could be developed for domestic use, livestock, irrigation or other uses, Todilto Exploration and Development Corporation will contact the lessee or landowner or the Eastern Navajo Agency of the Bureau of Indian Affairs regarding completion of the drill hole as a water well.
2. Any of the original exploration holes may be offset with the limitations that no offset hole will be drilled more than 500 feet from an original exploration hole, that the drill hole grid pattern be no less than twenty-five (25) foot spacing and that no more than 400 holes total will be drilled under this plan. All offset holes would be drilled in accordance with the conditions and requirements of the lease and the exploration plan. If more than 400 holes are needed, the additional holes will be approved under a supplemental exploration plan.
3. The number of offset holes drilled and their locations would be reported to the Area Mining Supervisor as soon as practical.

*Gregory Alan Edwards*

Gregory Alan Edwards  
Mining Engineer  
U. S. Geological Survey

I concur with the above recommendations.

*Robert S. Fulton*

Robert S. Fulton  
Area Mining Supervisor  
Southern Rocky Mountain Area  
U. S. Geological Survey

UNITED STATES GOVERNMENT

# Memorandum

|          |
|----------|
| RECEIVED |
| DATE     |
| BY       |
| FOR      |
| FILE     |

TO : Area Real Property Management Officer

DATE: MAY 7 1980

FROM : <sup>ACTING</sup> Environmental Quality Services OfficerSUBJECT: Proposed Interim Mining Plan and Original Exploration Plan - Navajo  
Allotted Mining Lease Number N00 C 14 20 8360 8396

The subject documents have been reviewed and we respectfully submit the following comments for your information.

## Exploration Plan

Paragraph 2 - What is proposed for ventilation in the 1200 Havlage Drift and its crosscuts since no surface disturbances are proposed?

Paragraph 3 - Archeological clearance shall be required for all of the SW $\frac{1}{4}$  of Section 18, T13N, R10W prior to the commencement of the described exploration operation. The Navajo Area Archeologist in the Environmental Quality Office at Window Rock shall be kept advised of all archeological surveys, reports and any necessary mitigating actions during the duration of this project.

Paragraph 17 - Recontouring and revegetation shall include all access roads and other surface disturbances resulting from the exploration operation.

## Addendum to Exploration Plan

### 6. Endangered Species

Who determined that no endangered species (Flora or Fauna) are known to inhabit the area? A list of Flora and Fauna in the area should be requested from U.S. Fish and Wildlife Service in Albuquerque. If there is any indication of endangered species, then a Section 7 Consultation must be considered.

## Interim Mining Plan

2.7 Archeological studies should be coordinated with the NAO Archeologist, Environmental Quality Office, Window Rock.

6.3 See paragraph 6 comment under Addendum to Exploration Plan.

RECEIVED

MAY 7 1980

AREA BRANCH OF  
REAL PRO

5010-108

*Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan*

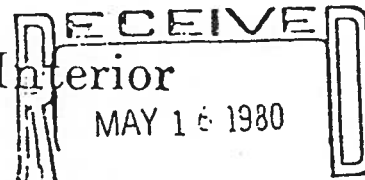
## Attachment F





# United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
NAVAJO AREA OFFICE  
WINDOW ROCK, ARIZONA 86515



IN REPLY REFER TO:

ARPM/Minerals

U.S. GEOLOGICAL SURVEY  
ALBUQUERQUE, NEW MEXICO  
MAY 13 1980

## Memorandum

To: Area Mining Supervisor, Conservation Division  
U. S. Geological Survey, Albuquerque, New Mexico

From: ~~Assistant~~  
Area Director

Subject: Proposed Interim Mining Plan and Original Exploration Plan  
on Navajo Allotted Mining Lease No. N00-C-14-20-8396

We have reviewed the subject plans and submit the following comments for your information and consideration for implementation into the proposed plans.

### Exploration Plan

Paragraph 2 - What is proposed for ventilation in the 1200 Haulage Drift and its crosscuts since no surface disturbances are proposed?

Paragraph 3 - Archeological Clearance shall be required for all of the SW $\frac{1}{4}$  of Section 18, T. 13 N., R. 10 W., prior to the commencement of the described exploration operation. The Navajo Area Archeologist in the Environmental Quality Office at Window Rock shall be kept advised of all archeological surveys, reports and any necessary mitigating actions during the duration of this project.

Paragraph 17 - Recontouring and revegetation shall include all access roads and other surface disturbances resulting from the exploration operation.

### Addendum to Exploration Plan

#### 6. Endangered Species

Endangered species (Flora or Fauna) are known to inhabit the area. A list of Flora and Fauna in the area should be requested from U. S. Fish and Wildlife Service in Albuquerque. If there is any indication of endangered species, then a Section 7 Consultation must be considered.

Interim Mining Plan

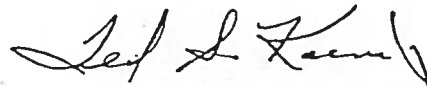
2.7 Archeological studies should be coordinated with Quality Office, Window Rock.

6.3 See paragraph 6 comment under Addendum to Exploration Plan.

12. Health and Safety Measures

This section needs to be expanded and the following actions discussed in detail.

Ground Control  
Safety and Health Training and Inspections  
Hazard Training  
Provisions for Ventilation and Dust Control  
Fire Control  
Havlage Safety  
Emergency Escapeways and Procedures



P. O. Box 26124  
Albuquerque, New Mexico 87125

May 21, 1980

Memorandum

To: Area Director, Navajo Area Office, BIA

From: Mining Engineer, Albuquerque District, USGS, SCR

Subject: Proposed Original Exploration Plan for Navajo Allotted  
Mining Lease NOO-C-14-20-8396

Our response to your memorandum of May 13, 1980, regarding your comments on the subject exploration plan is as follows:

Exploration Plan

Paragraph 2 - This aspect has been dropped from the exploration plan and has been submitted as the interim mining plan.

Paragraph 3 - See Addendum to Exploration Plan, Section 1. This survey has already been made and submitted to the National Park Service.

Paragraph 17 - This is covered on page 3 of the exploration plan, and will be emphasized in the approval letter. To date, TEDCO has done a good job of reclaiming their drill sites.

Addendum to Exploration Plan

6. Endangered Species:

An informal endangered species consultation has been provided for this project by the Fish and Wildlife Service. They state that no threatened or endangered species are present in this quarter section.

I hope this satisfactorily answers your concerns. If no, please do not hesitate to contact me; if so, please send your concurrence for this project as soon as possible.

(ORIG. SGD.) DAVID R. SITZLER  
David R. Sitzler

cc: Exploration File  
Chrono

DRSitzler:ab: 05-21-80

UNITED STATES GOVERNMENT

# Memorandum

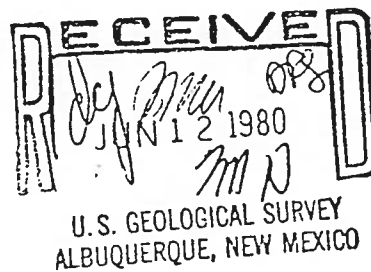
TO : Mining Engineer, Albuquerque District, SCR

DATE: JUN 5 1980

FROM : Navajo Area Director

SUBJECT: Proposed Original Exploration Plan - Todilto Exploration and Development Corporation, Navajo Allotted Mining Lease N00-C-14-20-8369

In response to your memorandum of May 21, 1980, regarding the subject exploration plan, we have reviewed your responses to our comments and herewith concur in the Proposed Original Exploration Plan.



P. O. Box 26124  
Albuquerque, New Mexico 87125

April 22, 1980

Memorandum

To: Area Director, Navajo Area Office, BIA

From: Mining Engineer, Albuquerque District, SCR

Subject: Proposed Original Exploration Plan on Navajo Allotted  
Mining Lease NOO-C-14-20-8369

Two copies of the subject exploration plan is enclosed for your distribution and review. We would appreciate receiving your comments and recommendations on the protection of the non-mineral resources and reclamation of the land surface involved, as soon as possible.

These comments and recommendations will be incorporated into our environmental analysis of the proposal, and a copy of that analysis will be sent to you upon completion. If you have any questions about the proposal, please contact this office.

(ORIG. SGD.) DAVID R. SITZLER  
David R. Sitzler

P20 1261519

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

|   |    |
|---|----|
| SENT TO   |    |
| Area Dir, BIA, Navajo Area  |    |
| STREET AND NO.  |    |
| P.O., STATE AND ZIP CODE  |    |
| Window Rock, AZ 86515   |    |
| POSTAGE   | \$ |
| CERTIFIED FEE   | c  |
| SPECIAL DELIVERY  | c  |
| RESTRICTED DELIVERY   | c  |
| SHOW TO WHOM AND DATE DELIVERED                                     | c  |
| SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY                         | c  |
| SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY            | c  |
| SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY | c  |
| TOTAL POSTAGE AND FEES  | \$ |
| POSTMARK OR DATE  |    |
| 8-22-80   |    |

4-22-80

RN RECEIPT REQUESTED



# United States Department of the Interior

GEOLOGICAL SURVEY  
Conservation Division  
P.O. Box 26124  
Albuquerque, New Mexico 87125

April 25, 1980

*dy*  
*11 N*  
*BJ*

## MEMORANDUM

TO: Dale C. Jones, Mining Engineer, Albuquerque, New Mexico

THROUGH: Acting Deputy Conservation Manager for Resource  
Evaluation, Roswell, New Mexico

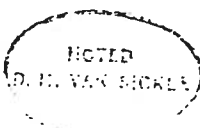
FROM: Geologist, Resource Evaluation, Albuquerque, New Mexico

SUBJECT: Review of Todilto Exploration and Development  
Corporation's Proposed Uranium Exploration and  
Interim Mining Plans for Vandever Lease NOO-C-14-20-8396

Todilto Exploration and Development Corporation's proposed exploration plan for the Vandever lease located in the SW $\frac{1}{4}$  of section 18, T.13N., R.10W., NMPM, McKinley County, New Mexico, is to drill a minimum of 160 exploration drill holes to locate uranium ores in the Todilto Limestone. If warranted, an additional 1,000 fill-in holes on 25 foot centers will be drilled. The depth of the exploration drill holes will be between 150 and 180 feet, becoming somewhat shallower to the south, and much deeper beneath the slope of Haystack Mountain to the north.

This area is not considered as prospectively valuable for geothermal, potash, or coal resources. The uppermost formation exposed in this area, the Dakota Sandstone, is stratigraphically below any potential economical coal-bearing formations. It is, therefore, unlikely that any conflict will develop between uranium mining and coal or any other mineral interests.

Although T.13N., R.10W. is classified as prospectively valuable for oil and gas resources, there has been little oil and gas exploration and no successful completions in this or adjacent townships. There are no oil or gas well locations within the subject township. The nearest petroleum test was in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  section 26, T.14N., R.11W., drilled to 240 feet by George Senutovitch, and abandoned on October 12, 1961. In the NW $\frac{1}{4}$ NW $\frac{1}{4}$  of section 14, T.14N., R.11W., Stella Dysart's Federal No. 14-1 was drilled to a depth of 4786 feet in the Pennsylvanian. This test, too, was



unsuccessful and was abandoned on June 18, 1959. Superior Oil Company's San Mateo No. 1-14 located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$  of section 14, T.14N., R.8W., was drilled to a total depth of 6253' to Precambrian basement without any show of oil or gas and was subsequently abandoned on February 28, 1954. In view of these unsuccessful attempts, it is doubtful that any conflict will arise with oil and gas interests.

The placement of drilling equipment in arroyos may constitute a potential geologic hazard during the summer months from possible flash flooding associated with intense thunderstorms. Care should also be taken in the construction of the proposed drilling roads on the slope of Haystack Mountain so as not to create conditions leading to rockfall, landslides, or road-bank washouts during storm runoff.

The Todilto Exploration and Development Corporation also submitted an interim mining plan along with the exploration plan. Their present operations are located in the SE $\frac{1}{4}$  of section 13, T.13N., R.11W. The mining plan is to expand existing underground operations due east into the Vandever lease to extract ore from the Todilto Limestone that is shown to exist from their present operations. In view of the fact that this proposed expansion of their haulageway will be beneath an existing structure, the exact depth to the ore from the ground surface and probable thickness of the orebody to be mined should be evaluated to assess the possibility of subsidence and subsequent damage to the structure.

The problem of contamination of groundwater was also addressed in both proposals. It is unlikely that any problems will be encountered at such shallow depths. However, this may not be true in the northern part of the SW $\frac{1}{4}$  of section 18 where the depths to the ore will be much greater. In section 29, T.13N., R.9W., where mining is carried out to depths of 450 feet, as much as 350 gpm of water must be pumped out of the Todilto to permit mining.

The proposed exploration and interim mining plans submitted by the Todilto Exploration and Development Corporation presented an adequate discussion of the geology and potential geologic hazards of the area. Their past mining and drilling operations in this area have never encountered groundwater nor caused any surface disturbance due to underground caving.

*Martha Moore*  
Martha Moore  
Geologist

Enclosures



SURNAME

*E. J. Murphy*

Navajo Area Office  
Window Rock, Arizona 86515

AEPM/Minerals

OCT 27 1980

Mr. George Warnock  
Todilto Exploration and Development Corporation  
3810 Academy Parkway South N. E.  
Albuquerque, New Mexico 87109

Dear Mr. Warnock:

The U. S. Geological Survey has informed this office that approval has been granted, for your Interim Mine Plan for the Navajo Allotted mining lease No. N00-C-14-20-8396.

We request you submit a performance bond pursuant to 25 CFR 177.8(a) for this project in the amount of \$10,000.00.

Sincerely,

/s/ Harry Dohm

Acting Assistant

Area Director

cc: U.S.G.S. - Mining Engineer

bcc: N00-C-14-20-8396  
Minerals Chrono  
Chrono  
M&F  
300

330:FEESPINOZA:jaf:10-24-80A



# United States Department of the Interior

GEOLOGICAL SURVEY  
South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125

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| MINERALS |
| ORG      |
| LEAD     |
| R/W      |
| BR. SAC. |
| FILE     |

OCT 7 1980

## Memorandum

To: Area Director, Navajo Area Office, BIA  
From: Mining Engineer, Albuquerque District Office  
Subject: Approval of Todilto Exploration and Development Corporation's Interim Mine Plan, Navajo Allotted Mining Lease NOO-C-14-20-8396

Enclosed for your file is a copy of the approval letter for the subject interim mine plan. Pursuant to 25 CFR 177.8(a), we recommend that the performance bond for this project be set at \$2,000.00.

David R. Sitzler

Enclosure

RECEIVED

OCT 10 1980

AREA BRANCH OF  
REAL PROPERTY ADMINISTRATION

P. O. Box 26124  
Albuquerque, New Mexico 87125

September 23, 1980

Mr. George Warnock  
President  
Todilto Exploration and  
Development Corporation  
3810 Academy Parkway South, NE  
Albuquerque, New Mexico 87109

Dear Mr. Warnock:

Your Interim Mining Plan for Navajo Allotted Mining Lease NOO-C-14-20-8396 is approved pursuant to the following conditions and requirements:

1. This office reserves the right to require any mine plan changes deemed necessary to eliminate or mitigate any unforeseen adverse environmental effects caused by this project.
2. Any changes or modifications of the Interim Mining Plan must be approved by the Mining Supervisor prior to implementation.
3. No waste dumps or ore stockpiles will be placed on the lease surface without written approval from the Mining Supervisor.
4. The underground mining operations will not proceed more than 500 feet east and 200 feet north and south from the point of underground entry into Lease -8396. The operations will not be extended beyond these limits without approval of the Mining Supervisor.
5. Pillar extraction will not commence until authorized by the Mining Supervisor. Prior to authorization, the lessee will submit the results of all completed exploration to demonstrate that pillar extraction under the Interim Mining Plan will not interfere with, or prohibit recovery of, other ore reserves.
6. The boundaries of Lease -8396 will be adequately marked in all underground workings as appropriate.
7. Ore extracted from Lease -8396 will be segregated from all other ore and will not be commingled with any other ore until final mill assays have been obtained. Monthly ore production from Lease-8396 will be reported to the Mining Supervisor.

RECEIVED

OCT 10 1980

AREA BRANCH OF  
REAL PROPERTY

3. TEDCO will take the mitigative measures necessary to assure that the residents on the lease are not appreciably inconvenienced by underground mining operations, such as blasting.

Sincerely yours,

Edward T. Sandell, Jr.  
Acting Deputy Conservation  
Manager - Mining

cc:  
Area Director, Navajo Area Office, BIA ✓  
File  
Chrono-DCM  
Chrono-District

DSitzler:tt 9-23-80



# United States Department of the Interior

GEOLOGICAL SURVEY  
P. O. Box 26124  
Albuquerque, New Mexico 87125

January 14, 1981

Mr. George Warnock  
President  
Todilto Exploration and Development Corp.  
3810 Academy Parkway South, N.E.  
Albuquerque, New Mexico 87109

Dear Mr. Warnock:

Your Addendum 3 to the Interim Mining Plan for Navajo Allotted Mining Lease NOO-C-14-20-8396 is approved pursuant to the following conditions and requirements:

1. This office reserves the right to require any mine plan changes deemed necessary to eliminate or mitigate any unforeseen adverse environmental effects caused by this project.
2. Any changes or modifications of Addendum 3 to the Interim Mining Plan must be approved by the Mining Supervisor prior to implementation.
3. No waste dumps or ore stockpiles will be placed on the lease surface without written approval from the Mining Supervisor.
4. The underground mining operations will not proceed more than 800 feet south and 500 feet east from the point of underground entry into lease -8396. The operations will not be extended beyond these limits without approval of the Mining Supervisor.
5. The underground mining operations may proceed northward to the northern lease boundary line and eastward to the eastern lease boundary line from any point north of 1400 N, provided that the eastern lease boundary pillar is not breached (50 foot boundary pillar per 30 CFR 231.32). The operations will not be extended beyond these limits without approval of the Mining Supervisor.

6. Pillar extraction will not commence until authorized by the Mining Supervisor. Prior to authorization, the lessee will submit the results of all completed exploration to demonstrate that pillar extraction under Addendum 3 to the Interim Mining Plan will not interfere with, or prohibit recovery of other ore reserves.
7. The boundaries of lease -8396 will be adequately marked in all underground workings as appropriate.
8. Ore extracted from lease -8396 will be segregated from all other ore and will not be commingled with any other ore until final mill assays have been obtained. Monthly ore production from lease -8396 will be reported to the Mining Supervisor.
9. TEDCO will take any mitigative measures necessary to assure that the residents on the lease are not appreciably inconvenienced by underground mining operations, such as blasting.

Sincerely yours,

(ORIG. SGD.) DAVID R. SITZLER  
David R. Sitzler  
Mining Engineer  
For the District Mining Supervisor



# United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Box 69  
Albuquerque, New Mexico 87103

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|----------|
| ANPMD    |
| ASST     |
| MINERALS |
| OSG      |
| IP-BAG   |
| R/W      |
| DR. SEC. |
| FILE     |

February 3, 1981

## Memorandum

To: Files

From: District Mining Supervisor, Albuquerque District, SCR

Subject: Additional Exploration Drilling Within Navajo Allotted Uranium Lease N00-C-14-20-8396, Todilto Exploration and Development Corporation

An original exploration plan for the subject lease was approved by the U. S. Geological Survey June 23, 1980. This plan proposed the drilling of 165 exploration boreholes with the possibility of an additional 1,000 fill-in boreholes. The environmental documentation (EA and FONSI) and written approval of the plan did not address the possibility of additional fill-in drilling, but the EA of the plan did discuss the cumulative impacts of exploration operations. According to the EA, "Uranium exploration drilling operations have minimal cumulative impacts because reclamation and the abandonment are performed contemporaneously with drilling". A July 24, 1980, field inspection of the leasehold revealed that the exploration operations were being conducted in accordance with the lease terms, approved exploration plan, and USGS uranium exploration drilling requirements.

In September 1980, Mr. Tim Pearson, Exploration Geologist with TEDCO, notified me that some additional fill-in drilling would be necessary. Since the original exploration plan included the possibility of this additional drilling, I verbally authorized Mr. Pearson to proceed, and a total of 329 boreholes have now been completed within the leasehold. A field inspection of this exploration will be conducted in the near future, to assure compliance with lease terms, exploration plan provisions, and USGS requirements. According to Mr. Pearson, drilling is not expected to resume for some time.

(ORIG. SGD.) DALE C. JONES  
Dale C. Jones

RECEIVED

FEB 5 1981

AREA FOR  
REAL PROPERTIES



# United States Department of the Interior

## GEOLOGICAL SURVEY

Conservation Division

P. O. Box 26124

Albuquerque, New Mexico 87125

July 2, 1979

### Memorandum

To: Files

From: Mining Engineer, SRMA, Albuquerque, New Mexico

Subject: Navajo Indian Allotment No. 059387 (2872), NE/4, Section 26, T. 13 N., R. 10 W., McKinley County, New Mexico

The subject allotment was examined by the writer June 13, 1979. The examination was made in response to a BIA request for recommendations and advice regarding the proposed negotiation of a uranium mining lease for said allotment.

The subject property is located in McKinley County, New Mexico about 12 miles north of Grants. Access is gained from U. S. Highway 66 or State Highway 53 by an improved dirt road connecting those two highways in the vicinity of Haystack Mountain and Mesa Montañosa. Several unimproved dirt roads provide access within the northeastern portion of the allotment.

The allotment is situated on a broad, northwest trending ledge near the base of Mesa Montañosa. The terrain is relatively flat and slopes gently toward the east-northeast except in the southern portion of the allotment where the ledge drops sharply over 100 feet to the broad plain below. Elevations range from about 6900 feet in the plain to the south to about 7600 feet at the top of Mesa Montañosa to the north. The average elevation of the allotment is 7000 to 7100 feet above mean sea level. Surface drainages in the area are small, deeply incised, intermittent arroyos that carry runoff from the higher elevations southward to the broad plain.

The climate of the area is semiarid. Average annual precipitation is about 10 inches with about one-half of this total occurring in July through September. The mean annual temperature is about 49°F, and minimum and maximum mean temperatures occur in January



ONE HUNDRED YEARS OF EARTH SCIENCE IN THE PUBLIC SERVICE

*Attachment G*



I-149-Ind-8909 which was effective in November 1951. Extensive open-pit and underground mining were conducted under this lease, and mill receipts on file show that about 11,174 dry tons of limestone ore averaging approximately 0.367%  $U_3O_8$  and 0.081%  $V_2O_5$  were produced. The uranium grades ranged from 0.170% to 0.615% while the vanadium grades ranged from 0.030% to 0.264%. Royalties on the ore produced totaled \$39,655.35. The mill receipts indicate that ore production ceased in September 1957, but the lease cancellation date is not known.

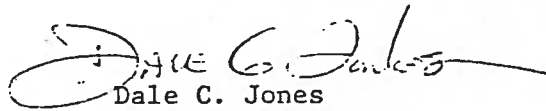
The primary uranium host in the area is the Jurassic Todilto Limestone, and all of the mining in Sections 23, 25, and 26, T. 13 N., R. 10 W. and Section 30, T. 13 N., R. 9 W. was conducted in this strata. Within the subject allotment, the mining occurred in a medium, irregularly shaped deposit in the middle and lower units of the Todilto. These units are referred to locally as the basal "platy" and medial "crinkly" zones, and they consist of fine-grained laminated and thin-bedded limestone containing thin siltstone partings and locally seams of gypsum. Bedding in the platy unit is undisturbed, but that of the crinkly unit is intensely crenulated. The platy and crinkly zones are about equal in thickness, and the total thickness of both zones probably ranges from about 2.5 to 15 feet with an average of about 7 to 8 feet. Unoxidized minerals in the Todilto Limestone have been identified as uraninite, coffinite, paramontroseite, haggite, flourite, pyrite, marcasite and galena. Barite, specular hematite, vanadium clay and recrystallized calcite are closely associated with these minerals and probably are also primary. Most of the Todilto uranium deposits occur at or near the surface, and oxidation has led to the widespread occurrence of the conspicuous yellow and green secondary minerals tyuyamunite, metatyuyamunite, uranophane, and probably sklodowskite. Less common secondary minerals are carnotite, cuprosklodowskite, gummite, santafeite, liebigite, and various oxides of manganese and iron.

The surface of the allotment was closely examined, and the attached map indicates that all of the examined mine workings are located within the allotment boundaries. The surface has been extensively disturbed by numerous large and small open cuts and waste dumps, and apparently no effort was made to reclaim these workings. Most of the dumps consist of topsoil and overburden, but limestone waste is also present. The dumps and cut bottoms support sparse vegetation, but the color of the dumps contrasts with the surrounding natural landscape. Some of the surface workings are immediately adjacent to three occupied dwellings, presumably those of the allottees. An open inclined shaft is located roughly southeast from the above mentioned dwellings. This entry evidently provided access to the underground mine workings that reportedly yielded the majority of the ore from the allotment. An old hoist platform and explosives magazine are still located at the inclined shaft, and numerous open exploration boreholes were found in the vicinity of the shaft.

Our files do not contain any maps or exploration data from which ore reserves for the subject allotment could be calculated, and the surface examination did not provide any significant information about the uranium producing potential of the property. Some of the waste material around the surface workings could possibly be processed economically, but most of said waste is probably barren and could not. Secondary mineralization, probably carnotite or tyuyamunite, was observed in the surface workings but does not necessarily indicate the presence of economically recoverable ore. The mill records for past production from the allotment show that the lowest grade of ore mined was 0.170%  $U_3O_8$ . This indicates that lower grade material which is now economically recoverable was left in place, but the amount of such material cannot be estimated. Undoubtedly, an extensive exploration program would be required to accurately assess the uranium potential of the allotment. It is possible that the party now wishing to lease the property has additional data that indicates or verifies the presence of sufficient recoverable ore reserves within the allotment because that party has based their proposed lease negotiations on an estimated monthly production of 1500 tons of ore at 0.10%  $U_3O_8$  for an estimated mine life of 2 to 4 years.

Mill records show that ore mined from the allotment also contained as much as 0.264% vanadium ( $V_2O_5$ ) which raises the question of future ore having any additional value for its vanadium content. I discussed this matter with United Nuclear-Homestake Partners' Chief Metallurgist, and he indicated that any significant additional value would require a very high vanadium content. Although vanadium is a by-product of the uranium milling process, only 10% of the contained vanadium is actually recovered, and the by-product value may or may not offset the cost of recovery. The vanadium is recovered solely because it is a penalized impurity in the uranium concentrate. Despite this fact, it seems advisable that the recovery of minerals associated with uranium be considered when negotiating a royalty schedule for the subject allotment.

Negotiation of a mineral lease for the subject allotment should also consider the condition of the allotment surface. As previously mentioned, past mining activities have seriously damaged the land surface by reducing its grazing capacity and degrading its appearance, and it would be very beneficial to the allottees if the lessee could be committed to restoring past as well as future disturbance. If surface mining operations were conducted under a new lease, the cost of reclaiming the old surface workings might not be prohibitive for the lessee.

  
Dale C. Jones  
Mining Engineer

**INSPECTION REPORT**

**Todilto Exploration and Development Corporation  
Navajo Allotted Leases  
NOO-C-14-20-5681  
McKinley County, New Mexico**

**U. S. Geological Survey  
Conservation Division  
P. O. Box 1716  
Carlsbad, New Mexico 88220**

**Prepared By  
Gregory Alan Edwards  
Mining Engineer  
June 21, 1976**

Todilto Exploration and Development Corporation's subject lease was inspected in preparation for analyzing a proposed exploration plan received April 12, 1976. This report is a summary of the inspection of the lease property conducted on June 9, 1976, by the author and by Mr. T. A. Schack of Todilto Exploration and Development Corporation (TEDCO).

The land covered by this lease is the N/2 of the N/2 of Section 13, Township 13 North, Range 11 West. This lease was acquired in the No. 7 Allotted lease sale.

About one-half of the lease area is rolling terrain. It is covered with scattered Pinon trees at lower elevations and more numerous Pinon trees at the higher elevations. The grass cover is fair to good and is in much better condition than most other properties in the area.

The remainder of the lease area is along the flank of Haystack Mountain. Haystack Mountain is a flat-topped mesa rising about 600 feet above the surrounding terrain. The flank of Haystack Mountain slopes steeply at slopes of 45° or greater. Rubble covers the slopes except where the sandstone formations outcrop vertically.

One occupied Navajo homesite exists on the lease property. It covers about 1/2 acre and is fenced around the perimeter. The homesite lies in the northwest corner of the lease property.

A large water tank lies in the northeast portion of the lease property. The water storage tank is fenced in and supplies water by an underground pipeline to the Navajo Homesites in the vicinity of Haystack Mountain.

All archaeological sites on the lease property have been flagged for ease of identification.

*Gregory Alan Edwards*  
Gregory Alan Edwards  
Mining Engineer

GAE:cj

Orig. to: Area Director, Navajo Agency, Window Rock, Arizona  
cc: Chief, Branch of Mining Operations through  
Regional Conservation Manager, Central Region, Denver  
cc: Files

dgj  
AFC

Exploration Examination Report  
Todilto Exploration and Development Corporation  
Navajo Allotted Uranium Lease N00-C-14-20-5681  
Section 13, T. 13 N., R. 11 W., McKinley County, New Mexico  
September 13, 1979

The captioned leasehold was inspected September 12, 1979. I was accompanied by Tim Pearson of Todilto Exploration and Development Corporation (TEDCO). The purpose of the inspection was the examination of five exploration boreholes recently completed by the lessee.

The five recently-completed boreholes are located in the western half of the leasehold at the northwest base of Haystack Mountain. The average depth of the holes was 165 feet, and Mr. Pearson noted that only one hole had encountered mineralization (1 foot of 0.08%  $U_3O_8$ ). Biodegradable foam was used for a circulation medium, and all of the foam discharged had been contained in pits at each hole. Surface disturbance from the drilling operations was minimal, as each drill site occupied 1/8-acre or less and an existing road and overland travel were used for access. The affected surface is primarily flat to gently rolling, sandy soil that supports a sparse cover of shrubs, grasses, and pinon and juniper trees.

At the time of this inspection, all of the boreholes had been temporarily capped with rocks, all pits had been backfilled, and the drill sites had been graded. Due to the sandy nature of the soil in the area, additional grading should not be necessary, and reseeding efforts would probably have very little success. Older drill sites in the area exhibit satisfactory revegetation by native species, and the same results would be expected for the new drill sites. Mr. Pearson pointed out that TEDCO will soon permanently plug all of the ninety-seven boreholes completed within the leasehold to date. The holes will be plugged with cuttings and cement according to USGS requirements.

No violations of lease terms or exploration plan requirements were observed during the inspection, and TEDCO has done a commendable job in keeping surface disturbance to a minimum. Although TEDCO has the approval to drill seven more boreholes under the original exploration plan, Mr. Pearson stated that future exploration will probably be limited to annual assessment work because the completed operations have not produced encouraging results.

(ORIG. SGD.) DALE C. JONES

Dale C. Jones  
Mining Engineer

Original to: Area Director, Navajo Area Office, BIA  
cc: Superintendent, Eastern Navajo Agency, BIA  
Acting Conservation Manager, Central Region  
File (5681)

DCJones:jes 9-17-79

File-5681

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**Exploration Examination Report  
July 12, 1978**

**Todilto Exploration & Development Corporation  
Navajo Allotted Uranium Lease  
N00-C-14-20-5681**

**Section 13, Township 13 North, Range 11 West, NMPM  
McKinley County, New Mexico**

**U. S. Geological Survey  
Conservation Division  
Area Mining Supervisor  
P. O. Box 26124  
Albuquerque, New Mexico 87125**

**Dale C. Jones  
Mining Engineer  
July 20, 1978**

July 12, 1978, the writer inspected Todilto Exploration & Development Corporation's (TEDCO) Navajo Allotted Uranium Lease NOO-C-14-20-5681. He was accompanied on the inspection by George Warnock, President of TEDCO.

Lease -5681 occupies approximately 160 acres in the north half of the north half of Section 13, T. 13 N., R. 11 W., in McKinley County, New Mexico. TEDCO acquired the lease October 8, 1975, by competitive bid in Navajo Allotted Land Sale 7 and has conducted limited exploration drilling within the property since approval of the exploration plan June 28, 1976. The purpose of this inspection was the examination of the eighty-seven boreholes drilled to date.

The involved lease is located on the northwest side of Haystack Mountain, a flat topped mesa elongated in an east-west direction, which reaches a maximum elevation of 7833 feet above sea level. The terrain within the leasehold consists of the steeply sloping north flank of the mountain to the east and the gently sloping land at the base of the mountain to the west (see attached topography map). Elevations range from about 7000 to 7700 feet above sea level, and the drainages are minor, intermittent arroyos draining to the north and northwest. The climate of the area is semi-arid with an average annual rainfall of about 12 inches. Most of this rainfall occurs in July and August. Vegetation consists of native shrubs and grasses and juniper trees, and the fauna in the area are probably insects, reptiles, birds, rodents and small predators typical of northwestern New Mexico.

The primary land use within the leasehold is livestock grazing, and about one-half acre in the northwest corner of the lease is fenced off for the residence of Mary Delgarito. The lease is situated within the highly developed and active Ambrosia Lake uranium mining district, and uranium mining operations have been and are being conducted in the immediate vicinity of the property. In fact, it should be noted that Haystack Mountain was the site of the first major uranium discovery in New Mexico by Paddy Martinez in 1950. TEDCO presently conducts both open-pit and underground uranium mining at its Haystack Mine in Section 13, T. 13 N., R. 11 W., and in Section 19, T. 13 N., R. 10 W. These operations are being conducted under private mineral leases issued by the Santa Fe Pacific Railroad Company (SFP) and a mineral lease issued by the Energy Research and Development Administration (ERDA). Underground uranium mining was also conducted in the 1960's at the now abandoned Mesa No. 2 Mine in Section 18, T. 13 N., R. 10 W., under a Navajo allotted mining lease. Cinder mining has been conducted in the past at the El Tintero cinder cone in Section 30, T. 13 N., R. 10 W.



The primary uranium hosts in the lease area are the middle Westwater Canyon Member of the Jurassic Morrison Formation and the middle Todilto Formation of the Jurassic San Rafael Group. Since the members of the well known Morrison Formation outcrop within the leasehold, only a few of the boreholes were expected to penetrate the Westwater Canyon.

TEDCO's prime exploration target is the Todilto Formation, a massive limestone which lies well below the Morrison, and all boreholes will penetrate the stratum to bottom in the underlying Entrada Sandstone of the San Rafael Group. The Todilto averages 10 to 12 feet thick in the lease area and thins to the west and thickens to the east. The depth of the Todilto is about 120 to 140 feet at the lower elevations of the lease.

TEDCO has drilled eighty-seven boreholes within the property to date. Failing 1000 drilling rigs were used to rotary drill the 5-inch diameter holes to depths ranging from 125 to 150 feet. The majority of the holes were drilled in the western half of the lease on 50- to 200-foot centers with a small number of holes drilled in the eastern half on 200-foot centers. Most of the boreholes were drilled dry, but a foam drilling medium and water were used when hole condition problems were encountered. All of the holes have been probed on 0.5-foot intervals by TEDCO using their own 500-foot reel probe (geiger counter), and roughly 20 percent of the holes have been check logged by Century Geophysical Corporation using standard gamma ray probes. All required data from the exploration have been submitted to the USGS.

At the time of this inspection, none of the eighty-seven boreholes had been permanently abandoned, and no reclamation had been performed. All boreholes have been temporarily plugged at the surface with short pieces of square or round, wood mine stulls or covered with a rock. The drilling sites are free of litter, and the operations have caused very little surface disturbance. Pits were not used to contain the fluid drilling medium discharge at boreholes requiring the use of foam and water. However, large, unsightly discharges of foam and cuttings were not evident, presumably due to the shallow depths of the holes. An access road was constructed up the steep north side of Haystack Mountain at the start of the exploration program. This road is still passable, but some minor repair work will be required before the road can be used for drilling operations. No water bars have been placed on the road.

According to the approved exploration plan, all surface disturbance caused by drill site and access road construction will be bladed, contoured and revegetated to the satisfaction of the lessor and the Area Director, BIA. All boreholes will be permanently abandoned in compliance with the requirements of the New Mexico State Engineer. This will involve filling dry holes to the surface with drilling cuttings and wet holes with

drilling mud or cement slurry as specified by the State Engineer. Each hole will be marked with a 5-foot length of 2-inch by 2-inch or 2-inch by 4-inch wood imbedded in the hole plug until only 12 inches remains above the ground surface. Presumably, this abandonment and reclamation will be performed upon completion of the drilling program.

No activities were in progress at the time of inspection. According to Mr. Warnock, TEDCO plans to resume drilling August or September of this year. Eight holes will be completed in the close spaced drilling area at the base of Haystack Mountain, and eight holes will be completed on the road up the north side of the mountain.

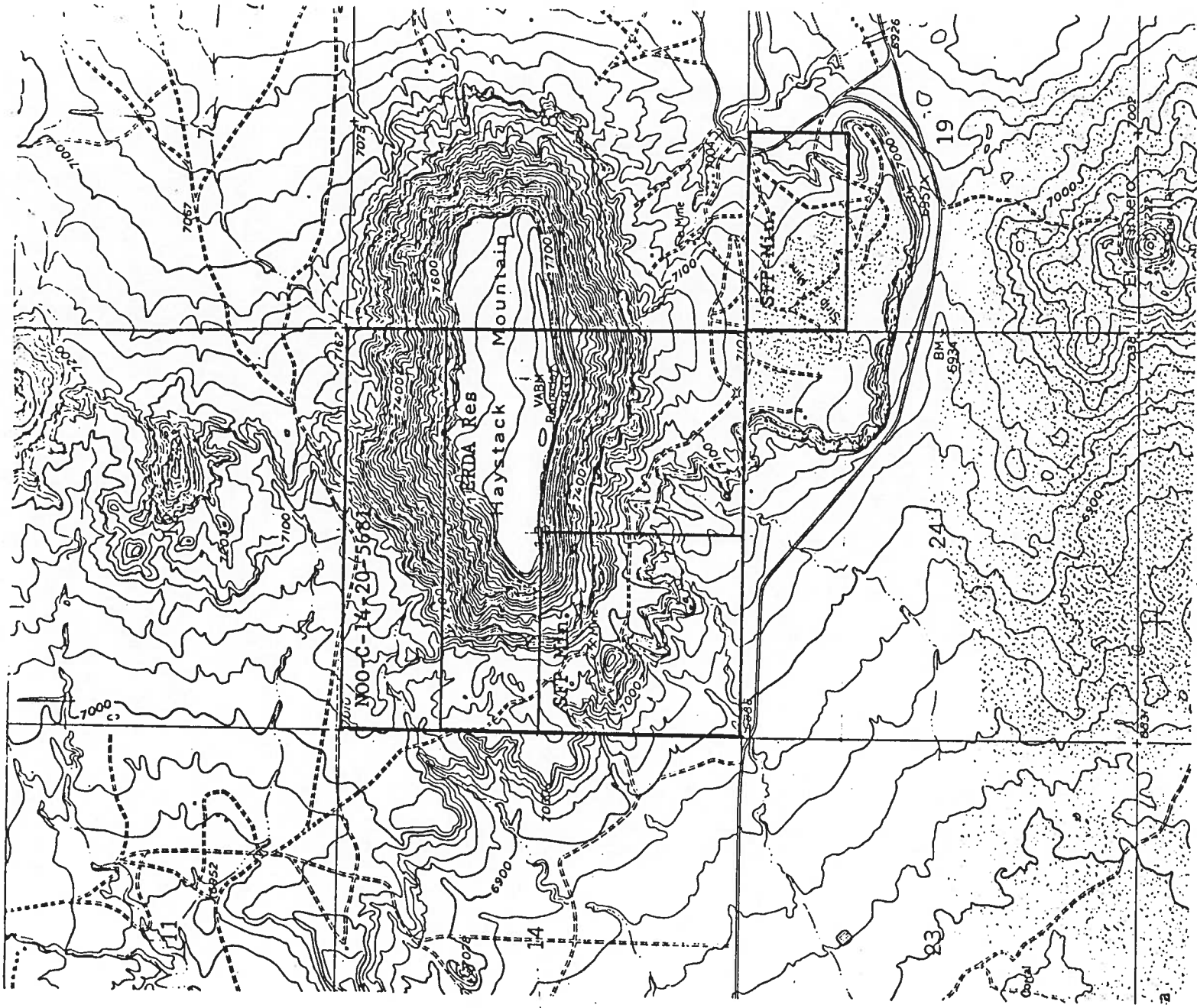
TEDCO is to be commended for its cleanliness and control of surface disturbance in its operations. The writer did notice certain problems in the operations regarding compliance with USGS requirements, and these problems are listed below. TEDCO will be informed of these problems so that appropriate action may be taken.

1. Water bars should be placed on the access road up the north side of Haystack Mountain as specified in the approved exploration plan.
2. The approved exploration plan indicated that approximately 20 percent of the boreholes would be cored. The USGS requires the submittal of lithology logs for all core holes.
3. Pits should be used to contain any and all fluid mediums (foam, water, etc.) used on drilling the boreholes.
4. TEDCO plans to permanently plug all boreholes by filling them to the surface with drilling cuttings. The USGS requires that a 5-foot cement or concrete surface plug be placed in each hole.

(ORIG. SGD.) DALE C. JONES

Dale C. Jones  
Mining Engineer

Original to: Area Director, Navajo Area Office, BIA  
cc: Superintendent, Eastern Navajo Agency, BIA  
Chief, Branch of Mining Operations, USGS  
Through: Conservation Manager, Central Region, USGS  
File (-5681)



TOPOGRAPHY MAP

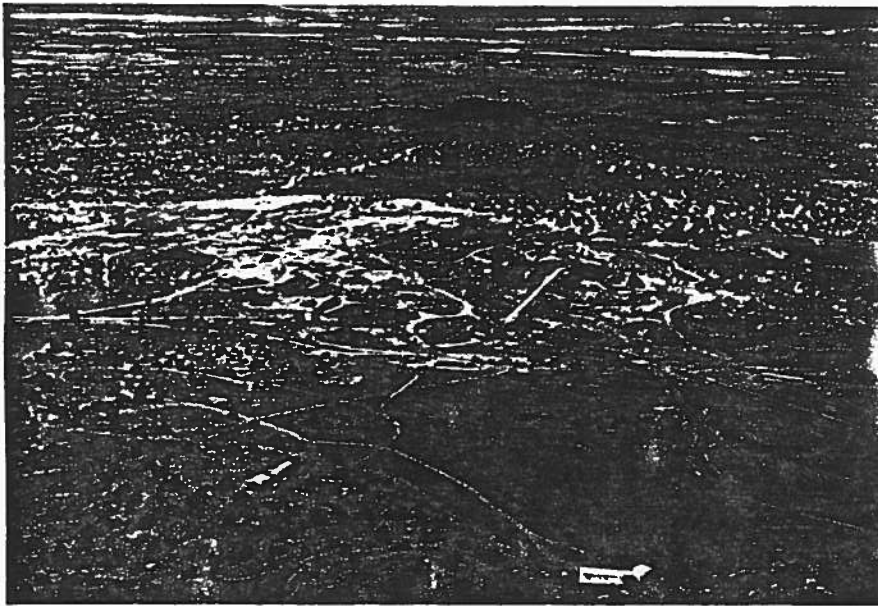


Photo A

Open-pit uranium mining operations at TEDCO's Haystack Mine (looking south from the top of Haystack Mountain) in Section 13, T 13 N, R 11 W and Section 19, T 13 W, R 10 W; El Tintero cinder cone visible in upper center of photo; tailings disposal area at The Anaconda Company's Bluewater Mill (uranium) visible in upper right corner of photo

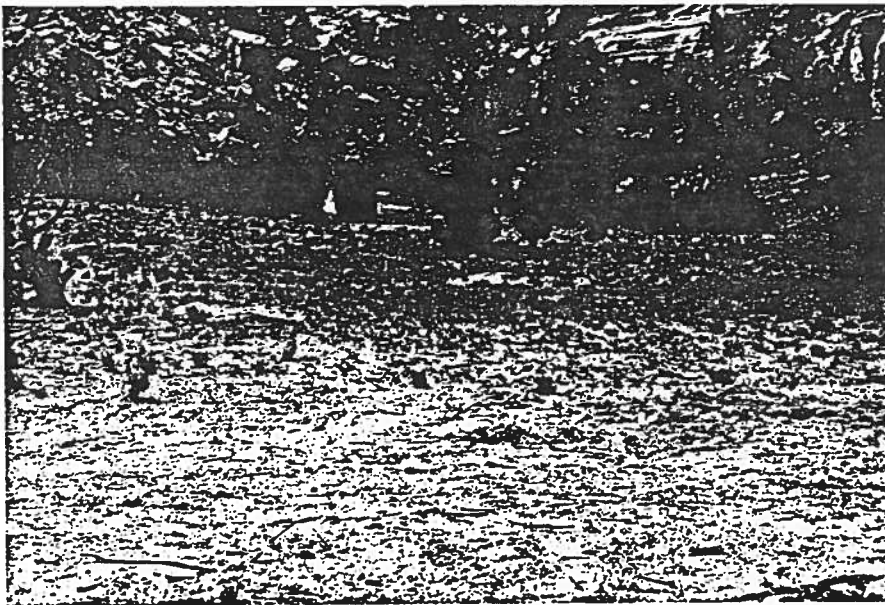
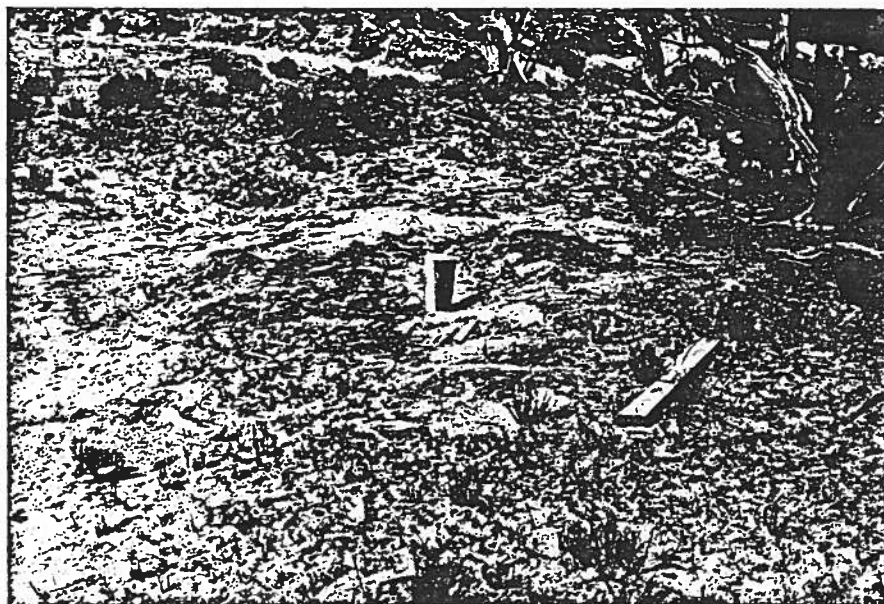


Photo B

Close spaced drilling (50-foot centers) at the northern base of Haystack Mountain in the western portion of lease -5681



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Photos C

Temporary wooden plugs (short pieces of mine stulls) in boreholes in close spaced drilling area in the western part of lease -5681



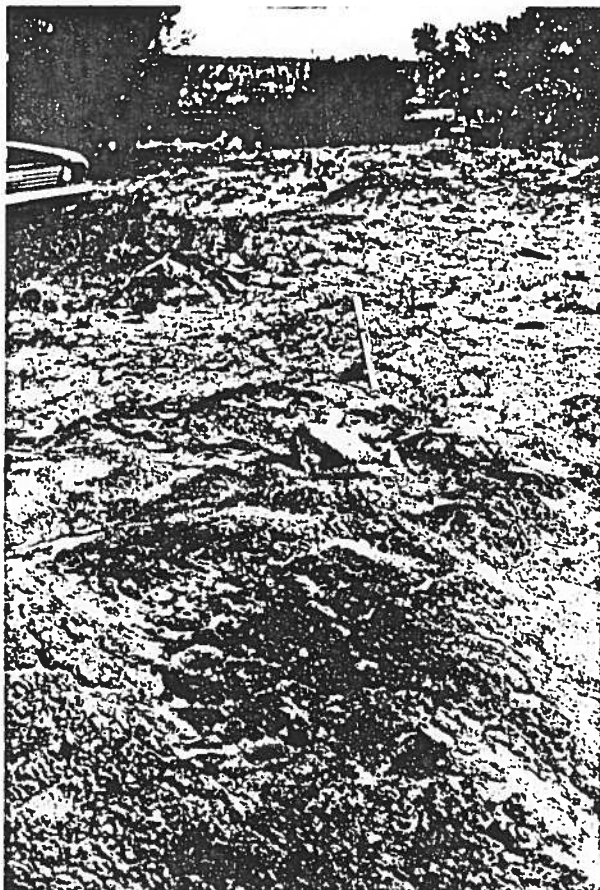


Photo D

Rock placed over borehole collar in close spaced drilling area in the western part of lease -5681

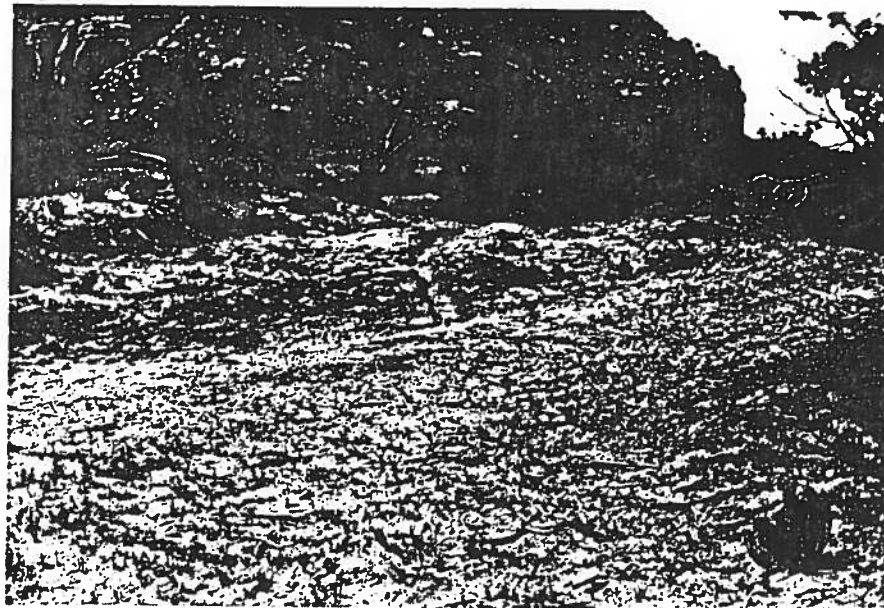


Photo E

Discharge of foam, water and drilling cuttings at borehole in close spaced drilling area in the western part of the lease; this borehole completed the later part of 1977

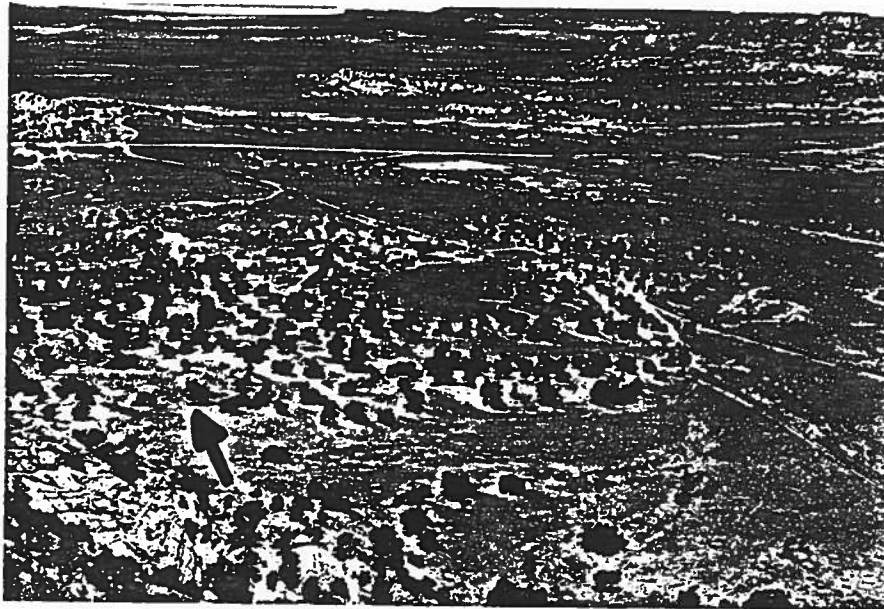


Photo F

Northwest corner of lease -5681 as seen from north slope of Haystack Mountain; residence of Mary Delgarito visible in center of photo; closely spaced drilling area (50-foot centers) is in lower left corner of photo (arrow).



Photo G

Central portion of lease as seen from north slope of Haystack Mountain; residence of Mary Delgarito visible in upper left corner of photo; closely spaced "pock marks" (arrow) are harvester ant hills not drill sites.

Exploration Examination Report  
August 28, 1978

Todilto Exploration and Development Corporation  
Navajo Allotted Uranium Mining Lease  
N00-C-14-20-5681  
Section 13, Township 13 North, Range 11 West, NMPM  
McKinley County, New Mexico

U. S. Geological Survey  
Conservation Division  
Area Mining Supervisor  
Southern Rocky Mountain Area  
P. O. Box 26124  
Albuquerque, New Mexico 87125

Dale C. Jones  
Mining Engineer  
August 30, 1978



August 28, 1978, the writer inspected Todilto Exploration and Development Corporation's (TEDCO) Navajo Allotted Uranium Lease N00-C-14-20-5681 in the company of Tom Schack, Geologist for TEDCO. The purpose of the inspection was the examination of the exploration drilling operations being conducted within the leasehold on the north side of Haystack Mountain.

Exploration drilling operations within the subject leasehold were previously inspected by the writer July 20, 1978. At that time it was learned that some boreholes were being drilled with a foam circulation medium and that this foam was being discharged onto the land surface instead of being contained in earthen pits at the boreholes. Several shallow holes (125 to 150 feet) so drilled in 1976 were examined, and there was very little or no evidence of the foam discharges. Evidently, the foam medium breaks down and disintegrates much faster than the drilling mud used in deeper holes, and, in fact, manufacturers' information rate most, if not all, of these foam mediums as easily biodegradable.

As a result of the July observations, the Area Mining Supervisor granted TEDCO special permission to discharge the foam medium at shallow boreholes; however, the acceptability of such discharges at deeper boreholes was not established due to the amount of fluid medium involved. TEDCO was instructed to notify the USGS when deeper drilling commenced so that the effects of such discharges could be examined and evaluated as soon as possible. August 24, 1978, TEDCO so notified the writer, and this inspection was therefore conducted.

Under the approved exploration plan, TEDCO intends to drill a total of fourteen boreholes in the eastern part of the leasehold on an access road up the steeply sloping north side of Haystack Mountain. Five of these holes ranging in depth from 450 to 600 feet will be drilled during this phase of the exploration program as will four more shallow holes (400 to 425 feet) near the base of the mountain. It was anticipated that all of these boreholes would be drilled using a foam circulation medium.

At the time of this inspection, the drilling of borehole I-88 to an estimated total depth of 600 feet was in progress. Approximately 440 feet of the hole had been drilled with foam, but inadequate air pressure at that depth was delaying completion of the hole. The foam medium had been discharged at the hole collar and directed to run down the side of

Haystack Mountain in a small drainage (gully) that trends approximately northwest. The foam tails had flowed down this drainage for quite some distance but were barely visible due to their small size and to the boulders and vegetation in and along the affected gully. The writer estimates that all evidence of the discharge will have disappeared within 6 to 12 months depending on the amount of precipitation occurring in the area. Since the writer could not foresee any significant adverse environmental effects from the foam discharge, Mr. Schack was given permission to continue the foam discharges at all of the boreholes to be drilled.

Later during the inspection, it was learned that the drilling personnel intended to complete I-88 and all the other boreholes with drilling mud and that the drilling mud would be discharged in the same manner as the foam. The writer informed Mr. Schack that this could not be allowed and that pits must be used to contain any drilling mud used. Mr. Schack assured the writer that such pits would be utilized, and a bulldozer was dispatched to borehole I-88 to construct the necessary pits. The writer also informed Mr. Schack that all mud pits would have to be either pumped and backfilled immediately or fenced until they could be backfilled without spillage of their contents.

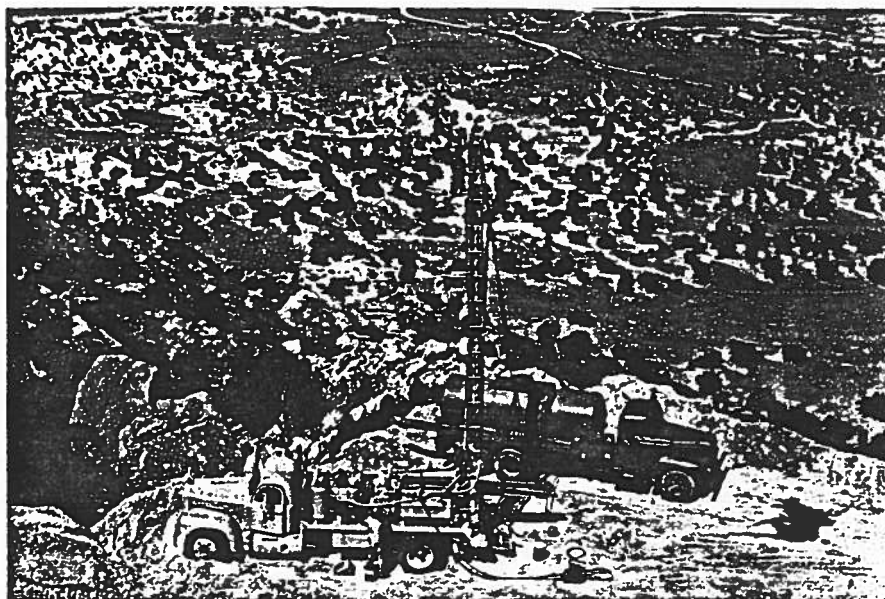
Following the examination of borehole I-88, the writer also examined boreholes I-67 and -70. These boreholes, located at lower elevations near the base of Haystack Mountain, had depths of about 380-400 feet and were completed in 1976 using foam. Here too, there was little or no evidence of the foam discharges.

No violations of lease terms or exploration plan requirements were observed during the inspection.

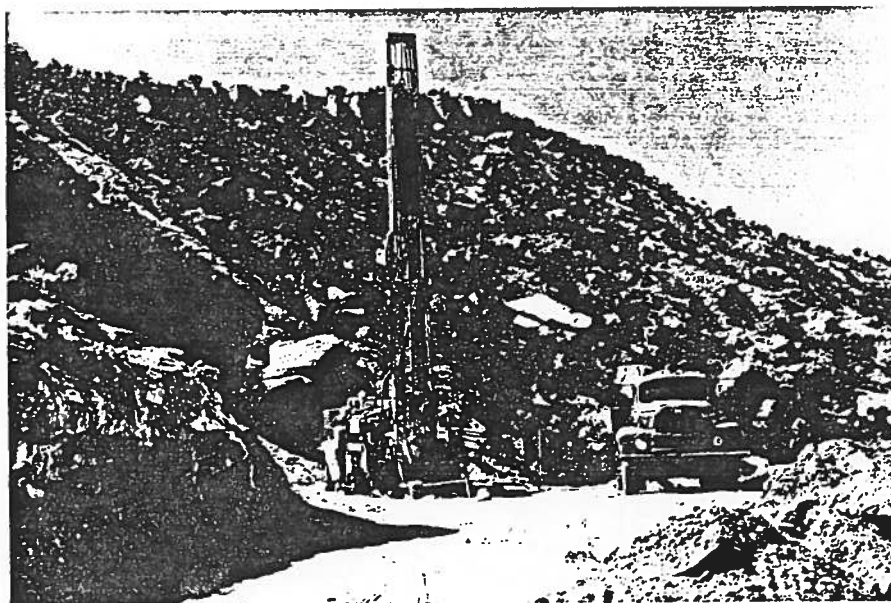


Dale C. Jones  
Mining Engineer

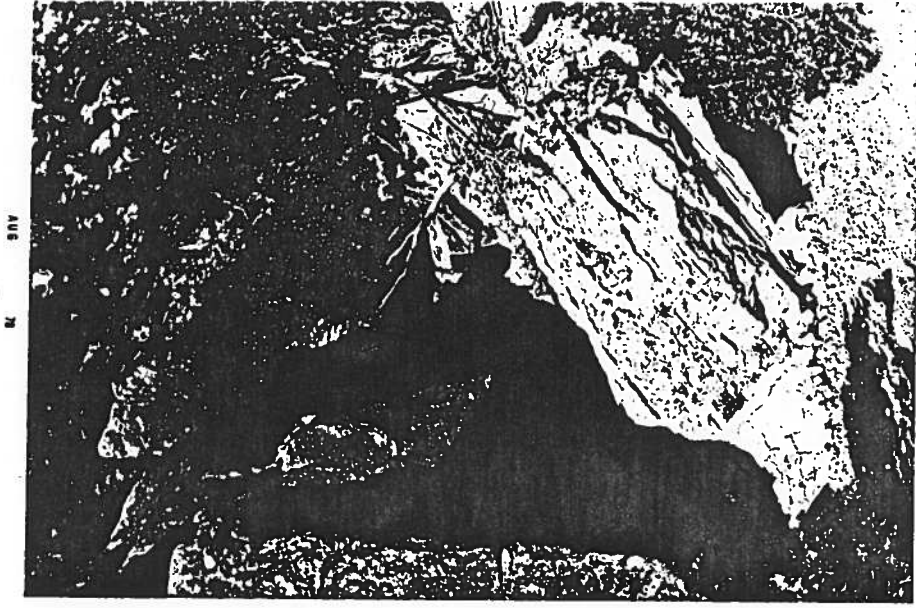
Original to: Area Director, Navajo Area Office, BIA  
cc: Superintendent, Eastern Navajo Agency, BIA  
Chief, BOMO, USGS  
Through: Conservation Manager, CR, USGS  
File (5681) ✓



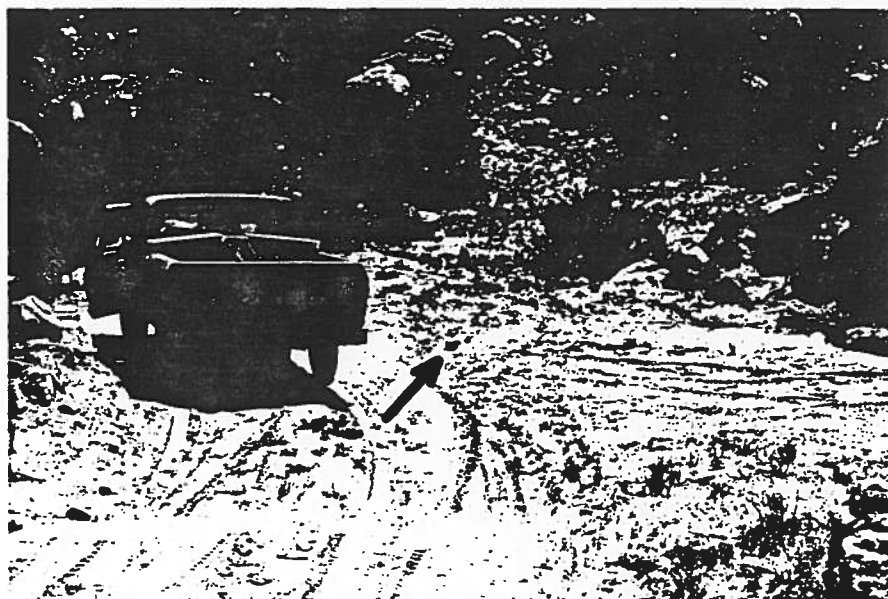
Drilling rig and water truck at borehole I-88 on the north side of Haystack Mountain; drilling rig is a Gardner-Denver type similar to a Failing 1000; residence of Mary Delgarito visible in background (upper right corner of photo).



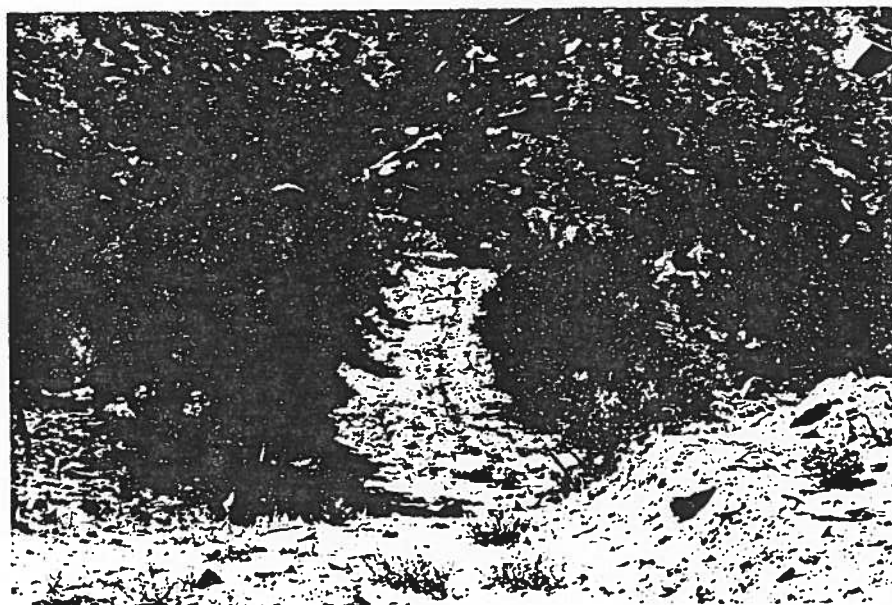
Drilling rig and water truck at borehole I-88; northwest side of Haystack Mountain visible in background.



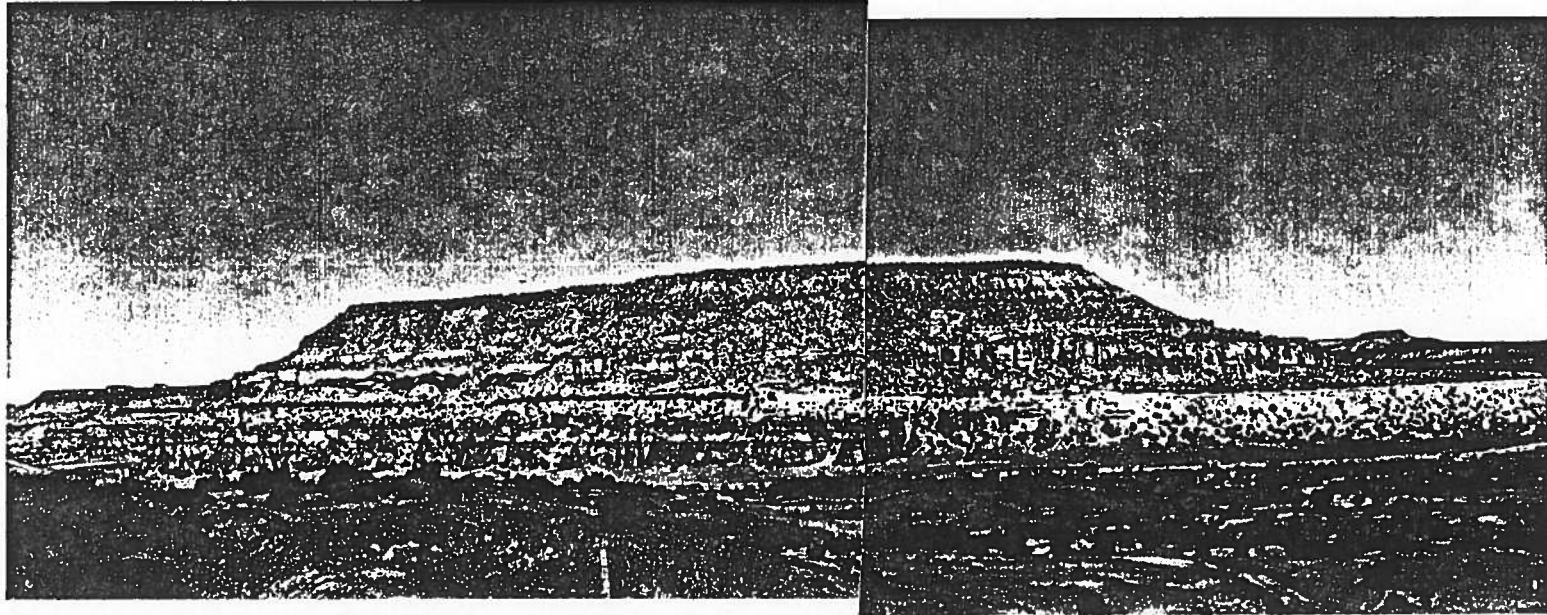
Discharge of foam drilling medium  
from borehole I-88.



Borehole I-67 in eastern part of lease 5681 at base of Haystack Mountain; arrow indicates temporary wood plug in borehole; borehole was drilled in 1976 (TD approx. 380 feet), using a foam drilling medium which was discharged on the surface at the collar.



Access road to borehole I-68 at the base of Haystack Mountain in the eastern part of lease 5681.



South side of Haystack Mountain as  
seen from El Tintero cinder cone.



# United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Box 69

Albuquerque, New Mexico 87103

## Mine Examination Report

Todilto Exploration and Development Corporation

Haystack Mine

Navajo Allotted Uranium Lease

NOO-C-14-20-8396

Section 18, Township 13 North, Range 10 West, N.M.P.M.

McKinley County, New Mexico

April 20, 1981

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ALBUQUERQUE, N.M.  
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B.L. BEG

David Sitzler, Mining Engineer, and I inspected the captioned mining operation April 16, 1981. We discussed the mining activities with Mr. Tom Roman, Mine Foreman, and examined the underground workings with Mr. Toren Olsen, Mine Geologist. The purpose of the inspection was the examination of the mining performed, and this was the first inspection since the operations were approved in September 1980.

For several years, Todilto Exploration and Development Corp., has operated the Haystack Mine in Section 13, T. 13 N., R. 11 W., and Section 19, T. 13 N., R. 10 W. Both open-pit and underground mining methods have been used, but present activities are confined to underground workings in Section 13. This mining has been performed under mineral leasing agreements between TEDCO, the Department of Energy, and the Santa Fe Railroad Company. The surface rights for these tracts are reserved for the Navajo Indian Tribe by PLO 2178.

TEDCO obtained Navajo Allotted Uranium Lease NOO-C-14-20-8396 for the SW/4, Section 18, T. 13 N., R. 10 W., through direct negotiation with the allottee. The lease was issued March 24, 1980, and shortly thereafter, TEDCO requested approval of both an exploration plan and an interim mining plan for the leasehold. The exploration plan provided for the surface drilling and probing of as many as 1,165 boreholes, and it was approved June 23, 1980. TEDCO has now completed about 330 boreholes within the lease. The interim mining plan provided for limited extension of the underground mining in adjacent Section 13 into lease -8396, to explore and develop the projected ore trend. All required equipment, personnel, and surface facilities were to be provided by the Section 13 operations. The plan was conditionally approved September 23, 1980.

Lease -8396 lies at the base of Haystack Mountain, a mesa elongated in an east-west direction. Elevations range from 7,833 feet at the top of Haystack Mountain to about 7,000 feet toward the southeast corner of the lease. Surface drainages are small intermittent arroyos that flow southwest and southeast only during periods of excessive precipitation.

The climate of the area is semi-arid. The average annual precipitation of about 12 inches occurs mostly as rain in July and August. The annual

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snowfall approximates 17 inches. Sunshine is abundant, and the relative humidity is characteristically low. The prevailing wind direction normally parallels the valleys and the average annual wind velocity is about 10 mph.

The Lease lies in a transition zone containing pinyon-juniper woodland and grassland. The woodland species are restricted primarily to the escarpments and higher elevations while the sparse grasses occur on the lower slopes and hills. Wildlife species in the area are restricted to birds, reptiles, and small mammals characteristic of pinyon-juniper and grassland habitats.

Vehicular access in the area is provided by improved and unimproved dirt roads that lead primarily to paved State Highway 53 to the east, and U. S. Highway 66 to the west. The land in and around the Lease is used primarily for residences and the grazing of livestock, mostly sheep and goats. Numerous open-pit and underground uranium mines operated in and around the Lease between 1950 and 1972; underground mining within the Lease itself produced approximately 25,000 tons of ore averaging 0.15 - 0.19 percent  $U_3O_8$  during this time period. The prolific Ambrosia Lake uranium mining area is about 10 - 20 miles to the east.

The uranium host in the Haystack Mine is the Todilto Limestone Member of the Upper Jurassic San Rafael Group. The Todilto ranges in thickness from 0 to 85 feet, bounded by the lower Entrada Sandstone Member and intertonguing with the Upper Summerville Sandstone Member. Generally, uranium mineralization in the Todilto Limestone occurs as flat, tabular deposits with irregular outlines in the top portion of the Member. Ore thickness rarely exceeds one to three feet, and grade varies widely, tending to be higher in the center of the deposits. Some of the ore deposits are quite uniform while others are erratic, small pods. Average depth to the ore within Lease -8396 is 100 to 120 feet. Mr. Roman noted that the high-grade ore (four and ten-foot thicknesses of about 0.14 - 0.15 percent  $U_3O_8$ ) indicated by two exploration boreholes, was encountered in the mine workings. The ore occurred in two small anticlinal folds, and both zones were only about four to five feet wide.

The Haystack Mine operates two 8-hour shifts per day, five days per week, with a total workforce of 17 people. Ore production averages about 2,000 tons per month. The mining cutoff grade is 0.10 percent  $U_3O_8$ , but ore as low as 0.05 percent  $U_3O_8$  will be recovered if broken. At the time of this inspection, the mining operations in Lease -8396 had been stopped. The ore encountered in the Lease was very spotty, and the 1,900 tons mined averaged only about 0.09 percent  $U_3O_8$ . This low grade, coupled with the declining price of uranium, made the operations in the Lease uneconomical. When the operations were active, four miners worked in the Lease two shifts per day, five days per week. Mr. Roman noted that all but 50 - 60 of the 1,900 tons mined had been shipped to the mill. He does not anticipate re-entering the Lease until the price of uranium is back up to at least \$30 per pound.



Access to the Haystack Mine is provided by the West Portal in Section 13. From this Portal, the 9-foot high by 11-foot wide 1200 Haulage Drift heads easterly to provide the main passageway to the underground workings for mining equipment and personnel, compressed air and water pipes, electrical lines, and exhaust ventilation. The Haystack Section 13 workings branch off the 1200 Haulage Drift to the north and south about 600 feet east of the West Portal. Fresh intake ventilation air for the Mine is provided by a 4-foot square vent raise driven on a 45° angle to the surface about 1000 feet east of the West Portal, and two 18-inch vent holes drilled vertically from the surface about 1400 feet east of the Portal. Both of these downcast ventilation entries are equipped with electric fans at their intersections with the 1200 Haulage Drift. Access into Lease 8396 was provided by extending the 1200 Haulage Drift east into the Lease about 85 feet, and fresh air was routed into the workings by flexible ventilation tubing in the Drift. When active, approximately 30,000 cfm of fresh air were routed into the workings in Lease -8396.

Due to the thin nature of the ore in the Todilto Limestone, TEDCO uses modified room-and-pillar mining on retreat with split shooting in both development and pillar extraction. Generally, 8-foot square development drifts and crosscuts are driven east-west and north-south respectively, to develop rectangular development blocks approximately 50 by 90 feet. Development blocks containing ore are then split by east-west crosscuts seven feet high by ten feet wide into rectangular ore pillars about 20 by 50 feet. After development is complete, the ore pillars are extracted by slabbing the pillars into the development drifts and crosscuts on retreat from the ore zones toward the 1200 Haulage Drift. Both development and pillar extraction are conducted using conventional drilling and blasting with pneumatic jackleg drills and diesel-powered, rubber-tired LHD's and haulage trucks. Ground support is minimal with the natural pillar supports being supplemented by split-set rock bolts with wire mesh, headboards, or steel mats, and timber stulls and/or cribbing as necessary.

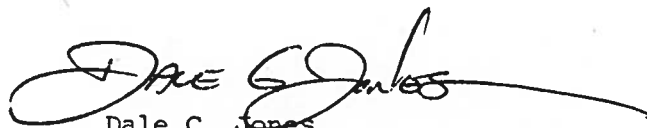
Since the uranium ore in the upper portion of the Todilto Limestone is very thin, split shooting is used to carefully control ore dilution during both pillar development and extraction. In pillar development, all drifts and crosscuts are driven so that the ore zone is located in the upper portions of the entry cross-sections. Each round is probed by a geologist, and the ore zone is marked on each face with paint. The lower portion of each round, or the waste, is shot out from under the ore first and mucked out. The ore, or upper portion of each round, is then popped down and trammed to the surface. The same procedure is used in pillar extraction and actually constitutes hand sorting of the ore for close grade control.

Ore trammed to the surface is placed on one of three stockpiles according to grade (0.04 - 0.07 percent  $U_3O_8$ , 0.071 - 0.10 percent  $U_3O_8$ , and 0.101 percent  $U_3O_8$  and above). Muck probing less than 0.04 percent  $U_3O_8$  is considered waste and is gobbed into abandoned workings or placed on the

dump near the West Portal. The ore in the surface stockpiles is blended to produce the most economic grade for shipping, and then transported to the United Nuclear-Homestake Partners' Mill at Ambrosia Lake. This is the only facility in New Mexico capable of milling limestone ore, and TEDCO sells only the crude ore to either United Nuclear Corporation or Homestake Mining Company. The buyer tolls the ore through the partnership mill and sells the concentrate produced.

No violations of the lease terms, interim mining plan, or Federal regulations were observed during this inspection. The 1200 Haulage Drift was extended east into Lease -8396 about 85 feet (see enclosed map). Pillar development, as described above, was then extended about 160 feet to the north, and 320 feet to the south. In the north, development extended about 90 feet east, and development in the south was driven about 120 feet east. A second east-west connection with the Haystack Section 13 workings was made 120 feet south of the 1200 Haulage Drift. This development is within the limits set in the approvals of the interim mining plan and subsequent modifications. Also, as specified in those approvals, no pillar extraction was conducted, and the boundaries of Lease -8396 were adequately marked in the two drifts connecting the mine workings. Ore from the Lease has been segregated from the other Haystack ore; however, due to the low grade of the ore, only two stockpiles are being used (0.05 - 0.099 percent  $U_3O_8$  and 0.10 percent  $U_3O_8$  and above). Monthly ore production has been reported to this office, and correct royalties have been paid on the first lot of ore shipped to the mill (Lot 9449-495.56 dry tons). No waste dumps, ore stockpiles, or other surface facilities have been placed on the surface of the Lease, and no complaints about the mining operations have been submitted to this office. As previously noted, the mining operations within the Lease have been stopped due to poor economic conditions.

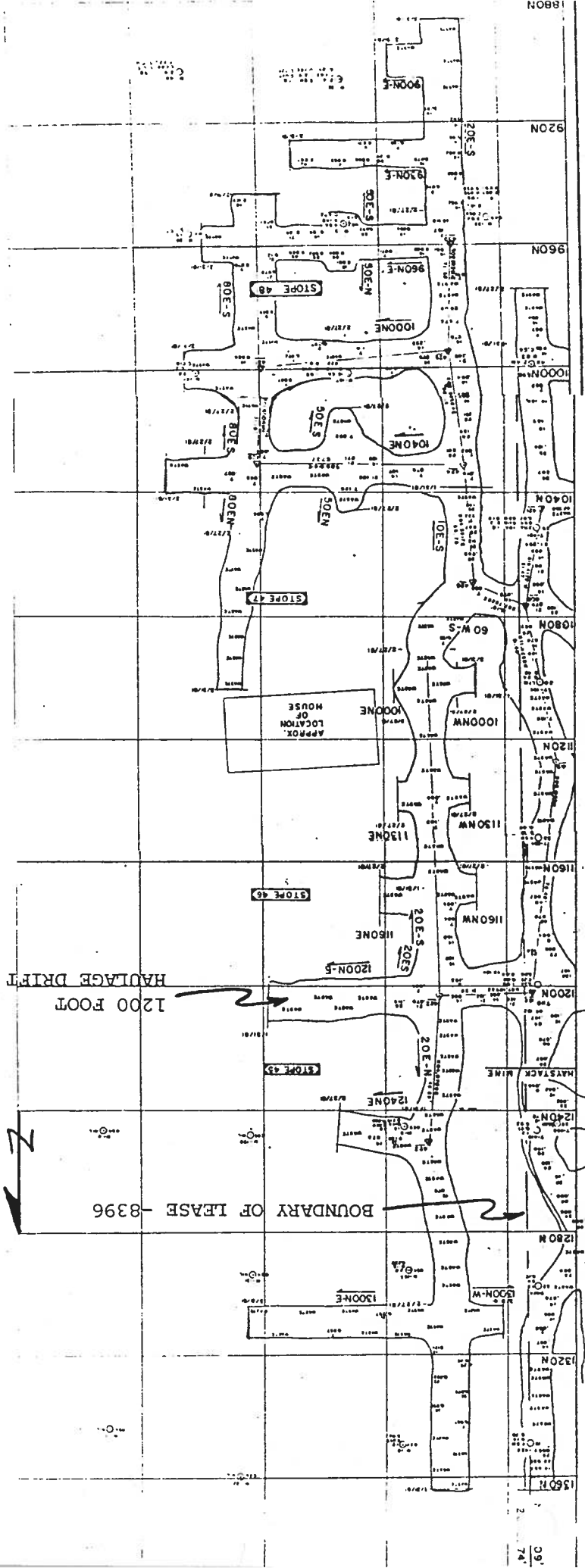
After the mine inspection, we briefly examined the abandonment of the exploration boreholes in Lease -8396. It appears that TEDCO has plugged all of the boreholes, but considerable reclamation (contouring, grading, and seeding) must be performed before abandonment is complete. TEDCO has done a very good job of plugging and marking the boreholes. No drilling operations were in progress at the time.



Dale C. Jones  
District Mining Supervisor

Enclosure

APR 14 1981  
4-14-81 10:00 AM (120)





United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Rio Puerco Resource Area  
155 Montano N.E.  
Albuquerque, New Mexico 87107



3570 (017)

JAN 13 1986

12-8-88

To: Area Director, Navajo Area Office, BIA  
ATTN: Floyd Espinosa, Area Realty Officer

From: Area Manager, Rio Puerco Resource Area, BLM

Subject: Todilto/Exploration and Development Corporation -  
Navajo Allotted Lease NOO-C-14-20-8396

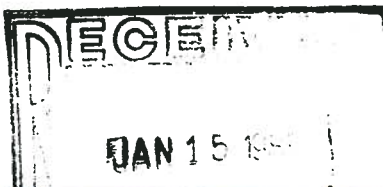
The Minerals Management Service has completed their audit (see attached memo). They found that a total of \$424.13 in additional royalties was due to the allottee. MMS has collected all royalties and interest assessments for this audit, and so are considering the case closed.

As was indicated by my memo to you, dated July 23, 1985 (see attached), we recommend that the lease be relinquished and the lessee's bond released subject to an audit by the MMS. In that all audit issues have been settled by MMS, we recommend final relinquishment of the lease and release of the lessee's bond.

We would like to note that Todilto Exploration corrected several serious safety hazards and did significant work on the site beyond what was required by the lease or/operating plan stipulations. In fact the lease area was left in better shape than when Todilto acquired it.

Unfortunately, both declines left over from previous operations have reopened and further work will be needed to make the site safe. It is our opinion that this reclamation work is not the responsibility of Todilto.

The BIA may want to program funds for reclamation of this, as well as, other sites needing reclamation on Navajo allotted lands. We will be glad to continue providing you with technical support in your minerals programs. If you have any questions, please call Roger Baer (761-4588) of my staff.



*John M. Anderson*  
*acting*

Attachment H



# United States Department of the Interior

IN REPLY REFER TO  
101110-8396  
3570 (017)

10 JUL 25 11 23 AM '85  
BUREAU OF LAND MANAGEMENT  
3550 Pan American Freeway, N.E.  
P.O. Box 6770  
Albuquerque, New Mexico 87107

JUL 23 1985

To : Area Director, Navajo Area Office, BIA  
From : Area Manager, Rio Puerco Resource Area, BLM  
Subject: Navajo Allotted Uranium Lease N00-C-14-20-8396; SW 1/4, Section 18,  
T. 13 N., R 10 W., NMPM; McKinley County, New Mexico; Todilto  
Exploration and Development Corporation

The subject lease was inspected on May 1, 1985 and was found to be properly abandoned.

The quarter-section tract was formerly Navajo Allotted Uranium Mining Lease 14-20-0603-7240 which expired under its own terms October 12, 1972. The last operator of record was Cibola Mining Company which acquired the lease April 16, 1966, via assignment from Mesa Mining Company. About 15 years prior to that, the mine was operated by Federal Uranium Company for approximately 4 years and was known as the Federal Mine. According to mine maps and Bureau of Mines Health and Safety Inspection Reports, the mine consisted of two adjacent, underground workings which were developed through separate declines. The workings extended from the declines to the northwest, south and southwest with the majority of the mining apparently occurring under Haystack Mountain. The mine was never satisfactorily conditioned for abandonment. Todilto Exploration and Development Corporation (TEDCO) conducted only exploration activities on the subject lease. However, TEDCO agreed to reclaim the two declines and a subsidence (?) area that ponds water.

TEDCO backfilled the two declines and graded and recontoured the subsidence area. TEDCO also re-established the drainage away from the declines so that water would not pond by a nearby residence. However, numerous areas which exceed our current recommended maximum gamma levels still exist. These areas are all related to the former mining operations, not TEDCO's exploration activities. We recommend the Bureau of Indian Affairs have a radiation survey done on the subject lease in order to quantify needed corrective actions.

DATE OF INSPECTION March 24, 1983

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SECTION? / YES / X / NO  
John M. Andrews, Jr.

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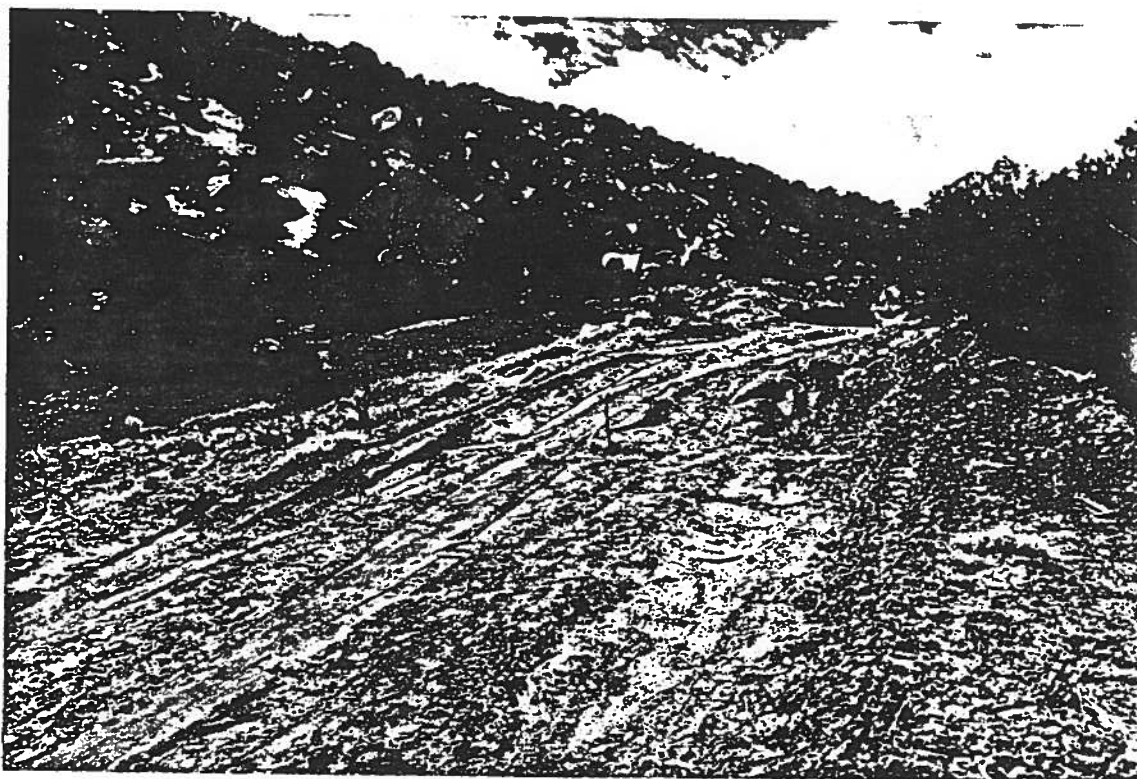


Photo 1 1982 drill hole on lease -5681. Hole is in access road.



Photo 2 1982 drill hole about 200 feet west of hole in Photo 1. Access road is still being used so site reclamation is not complete.

INSPECTION RECORD  
SOLID MINERALS

DMO Albuquerque STATE NM

DATE OF INSPECTION April 4, 1985

| SERIAL NUMBER<br>OF TRACT | HOLDER OF PRIMARY<br>TRACT INTEREST | TRACT<br>STATUS | NUMBER OF<br>INSPECTIONS | HOURS OF INSPECTION<br>ONSITE/TOTAL | COMMODITY | TRACT<br>TYPE |
|---------------------------|-------------------------------------|-----------------|--------------------------|-------------------------------------|-----------|---------------|
| COLUMN 1                  | COLUMN 2                            | COLUMN 3        | COLUMN 4                 | COLUMN 5                            | COLUMN 6  | COLUMN 7      |
| N00-C-14-20-5681          | TEDCO                               | Active          | 1                        | 1 / 4                               | Uranium   | Leased        |
| N00-C-14-20-8396          | TEDCO                               | Active          | 1                        | 1 / 4                               | Uranium   | Leased        |
|                           |                                     |                 |                          | /                                   |           |               |
| Tess Mining               |                                     |                 |                          | /                                   |           |               |
| Claims 1-10               | TEDCO                               | Active          | 1                        | .5 / .5                             | Uranium   | Mng. Cla      |
|                           |                                     |                 |                          | /                                   |           |               |
|                           |                                     |                 |                          | /                                   |           |               |
|                           |                                     |                 |                          | /                                   |           |               |
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|                           |                                     |                 |                          | /                                   |           |               |

TYPE OF INSPECTION (CHECK ONE) / / MINE / XX / EXPLORATION / / MINE ABANDONMENT  
/ / TECH EXAM, EA / / INACTIVE / / OTHER

PURPOSE OF INSPECTION TEDCO plans to release these leases.

BRIEF DESCRIPTION OF INSPECTION Went over leases to determine what reclamation was needed for abandonment of lease and mining claims.

MINE NAME \_\_\_\_\_ DESIGNATED OPERATOR \_\_\_\_\_  
DATE ORIGINAL MINE PLAN SUBMITTED \_\_\_\_\_ DATE ORIGINAL MINE PLAN APPROVED \_\_\_\_\_  
DATE MODIFIED MINE PLAN SUBMITTED \_\_\_\_\_ DATE MODIFIED MINE PLAN APPROVED \_\_\_\_\_  
IF APPROVED PLAN IS PENDING MODIFICATION, GIVE BRIEF DESCRIPTION OF MODIFICATION: \_\_\_\_\_

DATE ORIGINAL EXPL. PLAN SUBMITTED \_\_\_\_\_ DATE ORIGINAL EXPL. PLAN APPROVED \_\_\_\_\_  
DATE MODIFIED EXPL. PLAN SUBMITTED \_\_\_\_\_ DATE MODIFIED EXPL. PLAN APPROVED \_\_\_\_\_

BLM INSPECTOR(S) AND TITLES(S) George R. Tetreault, Jr., Mining Engineer ; Brian Lloyd

SURFACE MANAGEMENT AGENCY FOR TRACT(S) Bureau of Indian Affairs

NAME, TITLE, AND OFFICE OF SMA PERSONNEL PARTICIPATING IN INSPECTION \_\_\_\_\_  
John Sanchez, ENA, BIA

NAME, TITLE, AND OFFICE OF OSM OR REGULATORY AUTHORITY PERSONNEL PARTICIPATING IN INSPECTION \_\_\_\_\_  
None

NAME, TITLE, AND OFFICE OF COMPANY REPRESENTATIVE(S) PARTICIPATING IN INSPECTION \_\_\_\_\_  
Toren Olsen; Norm Dirks

HOURS OF OFFICES TIME (PRE-INSPECTION) PREPARING FOR INSPECTION 1  
HOURS OF OFFICES TIME (POST-INSPECTION) REPORTING ON INSPECTION 1  
TOTAL TRAVEL TIME 4 TOTAL OFFICE TIME 2

WAS A CONDITION OF NONCOMPLIANCE ENCOUNTERED DURING INSPECTION? / / YES / XX / NO  
IF YES, PREPARE NONCOMPLIANCE REPORT

WAS AN UNDESIRABLE EVENT ENCOUNTERED DURING INSPECTION? / / YES / XX / NO  
IF YES, PREPARE UNDESIRABLE EVENT REPORT

PERSONNEL RESPONSIBLE FOR CONDUCTING INSPECTION George R. Tetreault, Jr.

Area Director, NAO, BIA  
Superintendent, ENA, BIA  
IR File  
Oper. File: allotted -5681,  
-8396 TEDCO



CO. AlbuquerqueSTATE NMDATE OF INSPECTION April 16, 1985

| SERIAL NUMBER<br>OF TRACT | HOLDER OF PRIMARY<br>TRACT INTEREST | TRACT<br>STATUS | NUMBER OF<br>INSPECTIONS | HOURS OF INSPECTION<br>ONSITE/TOTAL | COMMODITY | TRACT<br>TYPE |
|---------------------------|-------------------------------------|-----------------|--------------------------|-------------------------------------|-----------|---------------|
| COLUMN 1                  | COLUMN 2                            | COLUMN 3        | COLUMN 4                 | COLUMN 5                            | COLUMN 6  | COLUMN 7      |
| 00-C-14-20-5681           | TEDCO                               | Aban.           | 1                        | 1.5 / 2.5                           | Uranium   | Lease         |
| 00-C-14-20-8396           | TEDCO                               | Aban.           | 1                        | 1.5 / 2.5                           | Uranium   | Lease         |
|                           |                                     |                 |                          | /                                   |           |               |
| Less 1-10                 | TEDCO                               | Aban.           | 1                        | 1 / 1.0                             | Uranium   | Mining        |
|                           |                                     |                 |                          | /                                   |           | Claims        |
|                           |                                     |                 |                          | /                                   |           |               |
|                           |                                     |                 |                          | /                                   |           |               |
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|                           |                                     |                 |                          | /                                   |           |               |

TYPE OF INSPECTION (CHECK ONE) / / MINE / XX / EXPLORATION / / MINE ABANDONMENT  
/ / TECH EXAM, EA / / INACTIVE / / OTHER

PURPOSE OF INSPECTION Examination of lease to determine if necessary reclamation for relinquish-  
ment was completed.

BRIEF DESCRIPTION OF INSPECTION See attachment.

MINE NAME \_\_\_\_\_ DESIGNATED OPERATOR \_\_\_\_\_  
DATE ORIGINAL MINE PLAN SUBMITTED \_\_\_\_\_ DATE ORIGINAL MINE PLAN APPROVED \_\_\_\_\_  
DATE MODIFIED MINE PLAN SUBMITTED \_\_\_\_\_ DATE MODIFIED MINE PLAN APPROVED \_\_\_\_\_  
IF APPROVED PLAN IS PENDING MODIFICATION, GIVE BRIEF DESCRIPTION OF MODIFICATION: \_\_\_\_\_

DATE ORIGINAL EXPL. PLAN SUBMITTED \_\_\_\_\_ DATE ORIGINAL EXPL. PLAN APPROVED \_\_\_\_\_  
DATE MODIFIED EXPL. PLAN SUBMITTED \_\_\_\_\_ DATE MODIFIED EXPL. PLAN APPROVED \_\_\_\_\_

NAME(S) AND TITLES(S) OF INSPECTOR(S) George R. Tetreault, Jr., Mining Engineer; Brian Lloyd,  
Volunteer; John Andrews, E.S.

SURFACE MANAGEMENT AGENCY FOR TRACT(S) Bureau of Indian Affairs

NAME, TITLE, AND OFFICE OF SMA PERSONNEL PARTICIPATING IN INSPECTION None.

NAME, TITLE, AND OFFICE OF OSM OR REGULATORY AUTHORITY PERSONNEL PARTICIPATING IN INSPECTION  
None

NAME, TITLE, AND OFFICE OF COMPANY REPRESENTATIVE(S) PARTICIPATING IN INSPECTION  
Norm Derks

HOURS OF OFFICES TIME (PRE-INSPECTION) PREPARING FOR INSPECTION 0  
HOURS OF OFFICES TIME (POST-INSPECTION) REPORTING ON INSPECTION 1  
TOTAL TRAVEL TIME 2.0 TOTAL OFFICE TIME 1

WAS A CONDITION OF NONCOMPLIANCE ENCOUNTERED DURING INSPECTION? / / YES / XX / NO  
IF YES, PREPARE NONCOMPLIANCE REPORT

WAS AN UNDESIRABLE EVENT ENCOUNTERED DURING INSPECTION? / / YES / XX / NO  
IF YES, PREPARE UNDESIRABLE EVENT REPORT

(ORIG. SGD.) GEORGE R. TETREAUULT, JR.

PERSONNEL RESPONSIBLE FOR CONDUCTING INSPECTION

By: Superintendent, ENA, BIA

George R. Tetreault, Jr.

Oper. File: Allotted (#'s above), TEDCO

IR File

File: Tetreault

#### Lease -8396

All reclamation has been completed. All exploration drill sites have been reclaimed. The road constructed on Haystack Mountain was reseeded and blocked. The old Federal Mine was operated on the site prior to leasing to TEDCO. There were two open adits which TEDCO agreed to reclaim. They did an excellent job of blocking and reclaiming the two adits and should be commended. Both of the former mine sites are in the range of 100-200 uR/hr. The Southwest mine site has an allottee's home on it. In the area of the two adits are hotspots that range 200-400 uR/hr. On the site of an old ore storage pad, there is a spot measuring 480 uR/hr. On the roads there are numerous hotspots between 70-100 uR/hr. In some places it looks like the company operating the mine used ore/waste to grade the roads.

#### Lease -5581 Claims

All reclamation has been completed. All exploration drill sites have been reclaimed. The road constructed on Haystack Mountain was reseeded and blocked.

#### Tess 1-10

The roads constructed for exploration on these claims have been reseeded and blocked. All drill sites reclaimed.

Will recommend release of these leases to BIA. Also recommend that the BIA have a radiation study done on Lease -8396 in order to determine what future reclamation should be done and which areas are safety hazards and should be avoided by the allottees.

10 Albuquerque STATE NM

DATE OF INSPECTION May 1, 1985

| SERIAL NUMBER<br>OF TRACT | HOLDER OF PRIMARY<br>TRACT INTEREST | TRACT<br>STATUS | NUMBER OF<br>INSPECTIONS | HOURS OF INSPECTION<br>ONSITE/TOTAL | COMMODITY | TRACT<br>TYPE |
|---------------------------|-------------------------------------|-----------------|--------------------------|-------------------------------------|-----------|---------------|
| COLUMN 1                  | COLUMN 2                            | COLUMN 3        | COLUMN 4                 | COLUMN 5                            | COLUMN 6  | COLUMN 7      |
| 00-C-14-20-5681           | TEDCO                               | Aban.           | 1                        | 1.5 / 3.0                           | Uranium   | Lease         |
| 00-C-14-20-8396           | TEDCO                               | Aban.           | 1                        | 1.5 / 3.0                           | Uranium   | Lease         |
|                           |                                     |                 |                          | /                                   |           |               |
| ess 1-10                  | TEDCO                               | Aban.           | 1                        | 1.0 / 1.0                           | Uranium   | Mining        |
|                           |                                     |                 |                          | /                                   |           | Claims        |
|                           |                                     |                 |                          | /                                   |           |               |
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TYPE OF INSPECTION (CHECK ONE) / / MINE / / EXPLORATION / / MINE ABANDONMENT  
/ / TECH EXAM, EA / / INACTIVE / / OTHER

PURPOSE OF INSPECTION Final lease examination for relinquishment of leases.

BRIEF DESCRIPTION OF INSPECTION See attachment.

MINE NAME \_\_\_\_\_ DESIGNATED OPERATOR \_\_\_\_\_  
DATE ORIGINAL MINE PLAN SUBMITTED \_\_\_\_\_ DATE ORIGINAL MINE PLAN APPROVED \_\_\_\_\_  
DATE MODIFIED MINE PLAN SUBMITTED \_\_\_\_\_ DATE MODIFIED MINE PLAN APPROVED \_\_\_\_\_  
IF APPROVED PLAN IS PENDING MODIFICATION, GIVE BRIEF DESCRIPTION OF MODIFICATION: \_\_\_\_\_

DATE ORIGINAL EXPL. PLAN SUBMITTED \_\_\_\_\_ DATE ORIGINAL EXPL. PLAN APPROVED \_\_\_\_\_  
DATE MODIFIED EXPL. PLAN SUBMITTED \_\_\_\_\_ DATE MODIFIED EXPL. PLAN APPROVED \_\_\_\_\_

NAME INSPECTOR(S) AND TITLES(S) George R. Tetreault, Jr., Mining Engineer

SURFACE MANAGEMENT AGENCY FOR TRACT(S) Bureau of Indian Affairs

NAME, TITLE, AND OFFICE OF SMA PERSONNEL PARTICIPATING IN INSPECTION \_\_\_\_\_

NAME, TITLE, AND OFFICE OF OSM OR REGULATORY AUTHORITY PERSONNEL PARTICIPATING IN INSPECTION  
None

NAME, TITLE, AND OFFICE OF COMPANY REPRESENTATIVE(S) PARTICIPATING IN INSPECTION \_\_\_\_\_

HOURS OF OFFICES TIME (PRE-INSPECTION) PREPARING FOR INSPECTION 0  
HOURS OF OFFICES TIME (POST-INSPECTION) REPORTING ON INSPECTION 1  
TOTAL TRAVEL TIME 2 TOTAL OFFICE TIME 1

WAS A CONDITION OF NONCOMPLIANCE ENCOUNTERED DURING INSPECTION? / / YES / XX / NO  
IF YES, PREPARE NONCOMPLIANCE REPORT

WAS AN UNDESIRABLE EVENT ENCOUNTERED DURING INSPECTION? / / YES / XXX / NO  
IF YES, PREPARE UNDESIRABLE EVENT REPORT

PERSONNEL RESPONSIBLE FOR CONDUCTING INSPECTION George R. Tetreault, Jr.  
cc: Superintendent  
Oper. File: Allotted (#'s above), TEDCO  
IR File  
File: Tetreault

TEDCO has completed all agreed-to reclamation of the subject leases. All drill hole markers have been removed. All roads built on Haystack Mountain have been reseeded and permanently blocked by heavy boulders.

Lease -8396 was the site of the old Federal Mine operated prior to TEDCO's lease. In addition to the required reclamation, TEDCO agreed to block both adits of this mine and clean up some other areas that presented a hazard to the allottees.

Both adits have been permanently blocked and an area which water ponded, due to a collapsed stope, was reinforced to prevent such ponding in the future (see pictures).

Will conduct a gamma level study on a future inspection.

## SOLID LEASABLE MINERAL SYSTEM

(SLMS)

## INSPECTION RECORD

Mine Name (E135): Haystack Exploration Tract - Date of Inspection: August 5, 1987  
 Lessee (E24): Todilto Exploration Lessor: \_\_\_\_\_  
 Inspector(s): Jay Smith, BLM. Company Representative(s): None  
Roger Baer, BLM  
 Inspection Type: Mining Related ☐ Exploration Related ☒ Inactive Tract ☐  
 (check one) (FY86 E105) (FY86 E107) (FY86 E109)

| Serial No.<br>(E1)  | Holder of Primary<br>Tract Interest<br>(E24) | Tract Type<br>(E11) | Commodity<br>(E9) | Inspection Time<br>(E106, E108, E110) |
|---------------------|--|---------------------|-------------------|---------------------------------------|
| 00-C-14-20<br>-5681 | Same as above                                | lease               | Uranium           | 2.4                                   |
| -8396               | Same as above                                | lease               | Uranium           | 2.4                                   |
|                     |  |                     |                   |                                       |
|                     |  |                     |                   |                                       |
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Inspection Time: Preparation Time: 0.5  
 (calculation) Travel Time (both ways): 2.0  
 Onsite Time: 2.0  
 Reporting Time: 0.2  
 Clerical: 0.1  
 TOTAL: 4.8  
 (E106, E108, E110)

NOTE: If more than one tract is inspected on the same trip, the inspection should be prorated to all tracts inspected on a percentage basis. Show proration calculation on back. Example: Tract A and Tract B take 10 hours to inspect, but 75% of the inspection was on Tract A. Inspection time for Tract A is (75% of 10 hrs.) 7.5 hours and Tract B is 2.5 hours.

Was a condition of noncompliance encountered? Yes \_\_\_\_\_ No X  
 Was an undesirable event encountered? Yes \_\_\_\_\_ No X

NOTE: If "Yes" to either of the above, prepare the appropriate report.

Purpose of Inspection: To determine general condition of lease area. Found declines had both reopened - located within 100 yards, where family lives.

cc: Area Director, NAO  
 Superintendent, ENA  
 Lease file

SOLID LEASABLE MINERAL SYSTEM  
(SLMS)  
INSPECTION RECORD

Mine Name (E135): Haystack Exploration Tract . Date of Inspection: March 18, 1988  
 Lessee (E24): Todilto Exploration

Inspector(s): Roger Baer, BLM Company Representative(s): None  
Jim Anallid, BIA

Inspection Type: Mining Related ☐ / Exploration Related ☒ / Inactive Tract ☐ /  
 (check one) (FY86 E105) (FY86 E107) (FY86 E109)

| Serial No.<br>(E1)   | Holder of Primary<br>Tract Interest<br>(E24) | Tract Type<br>(E11) | Commodity<br>(E9) | Inspection Time<br>(E106, E108, E110) |
|----------------------|--|---------------------|-------------------|---------------------------------------|
| N00-C-14<br>-20-5681 | Same   | Lease               | Uranium           | 2.3                                   |
| -20-8396             | Same   | Lease               | Uranium           | 2.3                                   |
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Inspection Time: Preparation Time: 0.5  
 (calculation) Travel Time (both ways): 3.0  
 Onsite Time: 0.8  
 Reporting Time: 0.2  
 Clerical: 0.1  
 TOTAL: 4.6  
 (E106, E108, E110)

NOTE: If more than one tract is inspected on the same trip, the inspection should be prorated to all tracts inspected on a percentage basis. Show proration calculation on back. Example: Tract A and Tract B take 10 hours to inspect, but 75% of the inspection was on Tract A. Inspection time for Tract A is (75% of 10 hrs.) 7.5 hours and Tract B is 2.5 hours.

Was a condition of noncompliance encountered? Yes ☐ No ☒  
 Was an undesirable event encountered? Yes ☐ No ☒

NOTE: If "Yes" to either of the above, prepare the appropriate report.

Purpose of Inspection: Annual Inspection - Open declines and radiation near homes continues to be hazard to residents in area. Older allottee showed up collapse pit that open up this winter, probably on AEC section.

cc: Area Director, NAO  
 Superintendent, ENA  
 Lease File

P. O. Box 829  
Carlsbad, New Mexico

AIR MAIL

March 9, 1959

Federal Uranium Corporation  
248 South Main Street  
Salt Lake City 10, Utah

Attention: Mr. Ed Buoy  
Mine Superintendent

Gentlemen:

On March 1, 1959, I examined your abandoned mining lease I-1149-Ind.-8913 located at Haystack Butte, McKinley County, New Mexico. The Navajo Agency advises that this lease, in addition to leases Nos. -8911 and -8912, has been surrendered for cancellation.

Both inclines leading to the underground workings on lease No. 8913 have been satisfactorily sealed. However, there remains an open drill hole, approximately 18 inches in diameter, which was used for ventilating the west workings off the No. 1 incline. The hole is located approximately 100 feet west of the incline and approximately 100 feet northeast of the cap magazine, and is about 30 feet north of the circle drive leading from the No. 1 incline surface area to the cap magazine and the powder magazine. Scrap sheet iron has been placed over the open hole.

This open hole is very dangerous as a child or a small adult could easily fall into it. Federal Uranium is requested to fill this open hole with dirt to the surface of the ground, and in the event there are other open ventilation holes which I failed to notice, these also should be filled.

Please attend to this matter as soon as possible and advise this office when the work has been completed, as lease No. 8913 will not be cancelled and the surety bond released until this dangerous condition has been eliminated.

Very truly yours,

E. S. Fulton  
Regional Mining Supervisor

PSF:mb

cc: Navajo Agency, Window Rock, Arizona

April 29, 1985  
James Miles, Realty Specialist  
subject: Field inspection Allotment 077931 - abandoned uranium mine

Office of Surface Mining (OSM) field inspector notified our office that Navajo Families living within the allotment 077031 might be utilizing rejected uranium mining materials for housing construction.

#### BACKGROUND INFORMATION

Allotment 077031 is located approximately 15 miles north of Grants, New Mexico (foothill of Haystack Mountain) in the SW/4 of section 18, T13N, R10W, McKinley County.

The Allotment was mined sporadically from 1952 to August 1966. The extent of development includes two underground mines and one trench. The original mining was done by the Federal Uranium Company. Later the allotment was mined by Cibola Mining until the final abandonment in August of 1966.

No further mining operation was conducted until 1980 when Todilto Exploration leased the allotment for uranium mining. Todilto conducted extensive underground mining until operation was ceased recently. Todilto is now in the process of reclaiming the allotment. Minimal surface reclamation is needed since all major mining activities were conducted underground.

Visual observation confirms that the access portal have been buried and all mining buildings and equipments have been removed. Further work is needed around the stockpile area.

Through all of the mining activities, eight families continually inhabited the allotment. Approximately sixteen (16) more families live in the ~~immediately~~ <sup>nearby</sup> allotments.

#### OBSERVATION

It was immediately apparent that the danger does not exist from the allotment but from the adjacent land where ~~active~~ <sup>open pit</sup> mining was conducted in the past. The abandoned ~~surface~~ <sup>open pit</sup> mine was never reclaimed and thus potentially radioactive materials have been exposed and are readily available to anyone wishing to utilize the materials.

On the inspection date there was a strong wind and it was observed that the predominantly northeast wind was contaminating the allotment. The abandoned surface mine is also used for stock grazing and as playground for local children.

The writer interviewed Mr. Watson Vandever, one of the permanent residents of the allotment. I explained to Mr. Vandever the concerns expressed by the OSM inspector that there was a possibility of radioactive materials being present in the area. He was thankful that I visited him and informed him of the possible danger of radioactive materials. He was ready to build a foundation for his trailer with materials from the abandoned mine.

Mr. Watson Vandever, one of the permanent residents of the subject allotment accompanied me throughout the inspection. I explained to him the concerns by the OSM inspector that there might be radioactive materials present in the area. He was thankful that I visited him and informed him of the possible danger from radioactive materials. He mentioned that he was ready to build a foundation for his mobilhome with materials from the abandoned mine. The mobil home was obtained from the Todilto Company which was used as an office for their uranium operation. I asked him if the mobil home was washed down by the company before it was turned over to him. He told me that as far as he knows it was never washed. I explained to him that since the mobil home was used by the uranium company it should be thoroughly checked for radioactive contamination.

I asked for his assistance in informing the other families living nearby and also discourage the further use of the spoil materials.

#### RECOMMENDATION

The allotment and the adjoining abandoned mine should be thoroughly analyzed for present of radioactive materials. If the study reveals highly radioactive materials then the local Navajo families should be informed accordingly and the contaminated area be immediately fenced off and "DANGER" signs posted.



JUL -2 1985

Area Real Property Management Officer, Navajo

Release of Navajo Allotted Uranium Lease Nos. N00-C-14-20-5681 and -8396

Area Manager, Rio Puerco Resource Area, Bureau of Land Management,  
Albuquerque, New Mexico

Attached for your necessary review are copies of the following Statement To  
Accompany Release and Release of Uranium Lease for cancellation of Lease Nos.  
N00-C-14-20-5681 and -8396.

Please advise us if the said leases have been properly abandoned and whether  
the lessee can be released from liability. Also, we would appreciate return  
of the documents.

/s/ Floyd E Espinoza

Attachments

bcc: TRR/1105-13a ✓  
Minerals Chrono  
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Attachment I



BUREAU OF LAND MANAGEMENT  
3550 Pan American Freeway, N.E.  
P.O. Box 6770  
Albuquerque, New Mexico 87107

4800 N

RECEIVED

1985 JUL 25 PM 2:10

AREA DIRECTOR'S OFFICE  
NAVJO AREA

JUL 23 1985

Memorandum

To : Area Director, Navajo Area Office, BIA  
From : Area Manager, Rio Puerco Resource Area, BLM  
Subject: Navajo Allotted Uranium Lease N00-C-14-20-5681, Todilto  
Exploration and Development Corporation

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An inspection of the subject lease was conducted May 1, 1985, and was found to be properly abandoned. Accordingly, there is no objection to the relinquishment of these leases and release of the lessee bonded liability.

*Harold E. Hank*

Enclosure (Inspection Report)

cc: Superintendent, ENA, BIA

JUL 26 1985

226

11/13/86

Navajo Area Office  
P.O. Box "M"  
Window Rock, Arizona 86515-0714

erals

JAN 14 1988

Mr. George Warnock  
3810 Academy Parkway South N.E.  
Albuquerque, New Mexico 87109

Dear Mr. Warnock:

This is your official notification that Navajo Allotted Mining Lease No. M00-C-14-20-5681 located in McKinley County, New Mexico has expired on its own terms on October 23, 1985.

An examination revealed the said lease has been properly reclaimed and abandoned; therefore, you are released from all liability for the lease, effective October 23, 1985.

Your bond is cancelled the same effective date (copy enclosed).

Sincerely,

/s/ Wilbur D. Morgan

Assting Assistant Area Director

Enclosure

cc: Navajo Tribal Minerals Section

bcc: TRR/1105-13  
Minerals Chrono  
300

333:DVMORGAN:sj:01/10/86

UNITED STATES  
memorandum

DATE: JUL -2 1985

REPLY TO  
ATTN OF: Area Real Property Management Officer, Navajo

SUBJECT: Release of Navajo Allotted Uranium Lease Nos. N00-C-14-20-5681 and -8396

TO: Area Manager, Rio Puerco Resource Area, Bureau of Land Management,  
Albuquerque, New Mexico

Attached for your necessary review are copies of the following Statement To  
Accompany Release and Release of Uranium Lease for cancellation of Lease Nos.  
N00-C-14-20-5681 and -8396.

Please advise us if the said leases have been properly abandoned and whether  
the lessee can be released from liability. Also, we would appreciate return  
of the documents.

*Daryl E. Egan*

Attachments

OPTIONAL FORM NO. 10  
(REV. 1-80)  
GSA FPMR (41 CFR) 101-11.6  
5010-114

U.S. Government Printing Office: 1980-3:1-153/6007